RESPONSE TO COMMENTS
NPDES PERMIT NO. MAG640000 and NHG640000
POTABLE WATER TREATMENT FACILITY GENERAL PERMIT

The U.S. Environmental Protection Agency's New England Region (EPA) is issuing a Final National Pollutant Discharge Elimination System (NPDES) General Permit for Potable Water Treatment Facilities (PWTFs) located in Massachusetts and New Hampshire. This permit is being issued under the Federal Clean Water Act (CWA), 33 U.S.C., §§ 1251 *et seq.*

In accordance with the provisions of 40 Code of Federal Regulations (CFR) §124.17, this document presents EPA's responses to comments received on the Draft NPDES Permit Numbers MAG640000 and NHG640000 ("Draft General Permit"). The Response to Comments explains and supports EPA's determinations that form the basis of the Final General Permit. From February 21 through April 21, 2023, EPA solicited public comments on the Draft General Permit.

EPA received comments from:

- City of Leominster, Water Division. Dated April 20, 2023.
- Town of Andover, Department of Public Works. Dated April 21, 2023.
- New England Bioassay. Dated April 20, 2023.
- Massachusetts Water Works Association. Dated April 21, 2023.
- Massachusetts Coalition for Water Resources Stewardship. Dated April 21, 2023.

Although EPA's knowledge of the facilities has benefited from the various comments and additional information submitted, the information and arguments presented did not raise any substantial new questions concerning the permit that warranted a reopening of the public comment period. EPA does, however, make certain clarifications and changes in response to comments. These are explained in this document and reflected in the Final General Permit. Below EPA provides a summary of the changes made in the Final General Permit. The analyses underlying these changes are contained in the responses to individual comments that follow.

A copy of the Final Permit and this response to comments document will be posted on the EPA Region 1 web site: https://www.epa.gov/npdes-permits/potable-water-treatment-facility-general-permit-pwtf-gp-massachusetts-new-hampshire.

A copy of the Final Permit may be also obtained by writing or calling Nathan Chien, USEPA, 5 Post Office Square, Suite 100 (Mail Code: 06-4), Boston, MA 02109-3912; Telephone: (617) 918-1649; Email Chien.Nathan@epa.gov.

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I. Summary of Changes to the Final Permit

1. The limits for Total Residual Chlorine and acute toxicity (LC50) in Appendix H have been corrected to match their appropriate labels (i.e., Average Monthly or Maximum Daily). See Response to Comments 2 and 4.

2. Footnote 8 has been modified to reflect the compliance level for TRC limits below the laboratory ML of 20 µg/L. See Response to Comment 2

3. Footnote 20 has been modified to allow toxicity testing to be eliminated for certain facilities that demonstrate no toxicity in their effluent. See Footnote 20 and Response to Comment 4.

4. Chronic toxicity testing is now only required on a case-by-case basis. C-NOEC limits have been removed from Appendix H. See Footnote 20 and Response to Comment 4.

5. Footnote 17 has also been updated to modify when PFAS monitoring begins for the two different methods. See Response to Comment 5.

6. Footnote 20 has been modified to allow WET sampling to occur in either the second or third calendar quarter. See Response to Comment 9.

7. The prohibition on new and increased discharges has been clarified in Part I.C.10 of the Final General Permit. See Response to Comment 11.

8. Footnote 5 has been edited to clarify the flow limit is set at 1.0 MGD and not less than this value.

II. Responses to Comments

Comments are reproduced below (as received).

A. Comments from the City of Leominster

Comment 1

The City of Leominster Water Division is writing to offer comments on the draft National Pollutant Discharge Elimination System (NPDES) Potable Water Treatment Facility General Permit (PWTF) proposed by the U.S. Environmental Protection Agency (EPA) and the companion federal Clean Water Act (CWA) section 401 certification and 2023 Draft Massachusetts Permit to Discharge Pollutants to Surface Waters (State Permit) for the same discharge pursuant to the Massachusetts Clean Waters Act being proposed by the Commonwealth of Massachusetts Department of Environmental Protection (MassDEP).

The City of Leominster would like to state at the outset of our comments that while we recognize that EPA has a legal obligation to protect Waters of the United States, there needs to be a balance to ensure that our obligations under the Safe Drinking Water Act (SDWA) are not unduly compromised in the process. Limits on discharges which could require changes to drinking water treatment processes could cause simultaneous SDWA compliance issues which must be evaluated very carefully.

Response 1

The Comment is correct in implying that the limits in the General Permit have been set to protect Waters of the United States in accordance with the requirements of the CWA. In renewing the PWTF GP, EPA in no way intends that these limits will compromise a facility's ability to comply with the SDWA. EPA recognizes that limits may require changes to facilities covered under the General Permit; however, those changes will not necessarily require changes to drinking water treatment processes. For example, in some cases, upgrades to wastewater treatment could be made with no direct effect on SDWA compliance. EPA will address any comments below where specific conflicts between CWA and SDWA compliance were raised.

Comment 2 Total Residual Chlorine

In Appendix H, we noticed that the Maximum Daily and Average Monthly limits on Total Residual Chlorine appear to be reversed. We understand that EPA has realized that they made an error in those values, but we are documenting it in our comments to be sure that EPA revisits that section and corrects any errors associated with those values.

The Total Residual Chlorine limits specific to the Notown WTP (MAG640016) appear to be reversed. The maximum daily should be 22 µg/L and the average monthly should be 13 µg/L. Could you please review and revise these limitations?

Currently the Notown Water Treatment Facility utilizes Standard Method # 4500CL G for low level Total Chlorine Residual Testing. This method is compliant with 40 CFR 136 requirements with a low method reporting limit of 20 ppb. The proposed Draft NPDES Permit contains a monthly average limit of 13 ppb. This requirement would require the City of Leominster to invest tens of thousands of dollars in new equipment and incur thousands of dollars of additional expenses, which will have to be passed onto their respective rate payers, in additional testing supplies and personnel costs, with no real environmental benefit. The City of Leominster would like to request that the draft permit be amended to state a Total Residual Chlorine Average Monthly Limit of 20 ppb.

Response 2

EPA is confirming that the values for Maximum Daily and Average Monthly Total Residual Chlorine (TRC) limits were switched. The lower value is meant to represent the Average Monthly Limit and the higher value is meant to represent the Maximum Daily Limit. Appendix H has been updated for the Final General Permit. It should be noted that the limits in Appendix H are not final but tentative and based on the assumption of no major changes to facility operations or dilution factors up to the time of NOI submittal. Limits may be updated if such changes were documented in a Facility's NOI. Procedures

for setting limits will follow those described in the Draft General Permit's Fact Sheet and Appendix I of the Final General Permit.

Regarding compliance with the Average Monthly TRC limit. EPA recognizes that for some NPDES permit limits, there does not exist EPA-approved methods with minimum levels sensitive enough to measure compliance with the permit limit. In such cases, EPA Region 1 sets a compliance level, a level for which compliance with the permit limit can be tracked. For TRC limits that fall below 20 µg/L, such as the Average Monthly limit for the Notown facility, EPA intends to set a compliance limit of 20 µg/L in the Facility's authorization to discharge. Footnote 8 in the General Permit has been updated to reflect this fact.

Comment 3 Aluminum Criteria

The City of Leominster Water Division is pleased that MassDEP has adopted revised Surface Water Quality Standards that incorporate EPA's newer methodology for calculating Aluminum criteria (Final Aquatic Life Ambient Water Quality Criteria for Aluminum 2018) and the multiple linear regression models contained in the Aluminum Criteria Calculator V. 2.0. We understand that MassDEP's Watershed Default Criteria will be utilized in this permit while we collect the data required for input into the calculator for site specific criteria limits. The City of Leominster Water Division remains concerned that anti-backsliding provisions might prevent us from utilizing a higher limit in the future and would encourage EPA to include language in the final permit that recognizes if site-specific criteria are less stringent than the watershed default, that we will be allowed to meet the less stringent limit in future permits.

The City of Leominster Water Division questions the overall need for an Aluminum limit in these permits. The Massachusetts Water Works Association (MWWA) submitted substantial research in 2008 justifying that Aluminum has beneficial properties for water bodies, without causing harm to aquatic species.

Response 3

EPA does not find it appropriate to dictate permit procedures for future issuances in the current version of a NPDES permit, as those procedures and the site-specific conditions may change in the interim. EPA will assess the applicability of backsliding if/when it comes up during future permit development on a case-by-case basis. At that time, EPA will rely on backsliding-related provisions in federal statute and regulations. See CWA §§ 402(o) and 303(d)(4) and 40 CFR § 122.44(l).

Aluminum toxicity to aquatic life is a well-established fact. See EPA's 2018 *Final Aquatic Life Ambient Water Quality Criteria for Aluminum*.[1] Aluminum can have effects on aquatic life (both invertebrate and vertebrate species) through disrupted ion regulation and respiratory dysfunction. For example, for fish, aluminum can accumulate on the gill surface, cause physical damage to epithelial cells, result in the loss of plasma ions (Na^+, Cl^-), and in some cases result in the death of the fish.[2] An extensive list of toxicity results from aluminum toxicity testing of a variety of freshwater species is provided in Appendix

[1] Available at: https://www.epa.gov/wqc/2018-final-aquatic-life-criteria-aluminum-freshwater.
[2] *Id.* page 11.

A and C of the 2018 Final Criteria document. EPA recognizes that at some concentrations, aluminum toxicity will not cause harm to aquatic species. The aluminum limits presented in the Draft General Permit represent those thresholds.

As discussed in the fact sheet, the CWA and federal regulation require that permit effluent limits based on water quality be established for point sources discharges when such limitations are necessary to meet state or federal water quality standards that are applicable to the designated receiving water. See CWA § 301(b)(1)(C) and 40 CFR §§ 122.44(d)(1), 122.44(d)(5). EPA has set aluminum limitations based on Massachusetts State WQS and corresponding aquatic life criteria. See 314 CMR 4.06 Table 29a – Appendix A. Massachusetts in adopting aluminum criteria responded to comments from the public, including MWWA and EPA, concerning the issues raised in the comment. See *Summary of Final Revisions to the Massachusetts Surface Water Quality Standards (314 CMR 4.00) and Response to Comments*.[3] EPA finds that this comment has not raised any new information that calls into question EPA's approval of Massachusetts WQS or the application of the aluminum criteria to set WQBELs.

Comment 4 WET Testing

The City of Leominster Water Division recognizes that WET Testing was a requirement in the 2017 permits, and we are pleased to see that EPA has dropped the frequency of testing for some permittees, which we support. We have major concerns about the requirement for all permittees to test during the same quarter. The City of Leominster notes that the MWWA has queried permittees, and those responding are all using the same lab. One permittee asked that lab about their capacity to process the samples if they were all submitted in the same quarter (which is the recreating period), and they said it would be difficult for them to do it. EPA needs to provide schedule flexibility in the final permit to shift the WET testing requirements to other quarters in recognition that lab capacity may prohibit the analysis. We are also concerned about the proposed testing period (June-Sept) as that could potentially represent a higher water demand period, so potentially a higher discharge into what could be a lower dilution water body, which could set us up for failure. Does EPA have a list of approved labs for these analyses? If WET sampling passes the test, then future WET sampling should not be required.

The City of Leominster Water Division is particularly concerned that WET Testing is an expensive test, often costing a couple of thousands of dollars, funds which could be better spent addressing water systems' pressing infrastructure and treatment needs. The City is currently engaged in a Drinking Water SRF Project totaling over $6.5 million which triggered a need for a 2-year phased rate increase to our residents to offset the added debt. This loan is projected to go into repayment this year. Additional capital expenditures outside of our already inflated operating expenses may trigger another rate increase, or at least require the next rate increase to be significantly larger, with no direct benefit from the rate payers (as these expenses would have no impact on their drinking water quality).

[3] Available at: https://www.mass.gov/regulations/314-CMR-4-the-massachusetts-surface-water-quality-standards#supporting-documents.

The City of Leominster understands that the Chronic WET Test is a 7-day test with refresh samples required; it will be difficult, if not impossible, for intermittent discharges to satisfy this requirement if their discharge is not continuous during that 7-day period. This should be reconsidered by EPA.

The City of Leominster is concerned with the new requirement for Effluent Toxicity limitations in Appendix H. This concept of Toxicity limits, while probably familiar to wastewater treatment facilities, is new to Public Water Systems (PWS). We see that percentages have been assigned for LC-50s and C-NOECs and understand those percentages relate to dilution factors, but we are unclear on how an annual test can result in a Monthly Average limit? Finally, it is unclear what happens if a permittee fails the Toxicity limitations? Are they no longer allowed to discharge? The provision of drinking water which meets Safe Drinking Water Act standards often requires the use of certain chemicals to achieve compliance. Many of these chemicals, such as Aluminum, have been used successfully in water bodies, with no harm to the aquatic species that live in our reservoirs or rivers. Public health protections must be considered over perceived environmental harm that these discharges could cause. The City of Leominster Water Division urges the EPA to drop the toxicity limitations from this permit.

Response 4

Regarding the requirement to test during a single calendar quarter, EPA has addressed this comment as a response to a similar comment from New England Bioassay. See Response to Comment 9.

Due to comments from the City of Leominster and other commenters, EPA has reassessed its WET approach for the General Permit. WET testing was phased into the General Permit in the 2017 reissuance as a standard requirement for more frequent dischargers. Before that, testing was only required on a case-by-case basis. In part, the goal of the testing was to collect a robust dataset to characterize toxicity from potable water treatment facilities that could guide permit decisions going forward. As discussed in the most recent Fact Sheet, WET results from the 2017 reissuance varied significantly between facilities. Some facilities exhibited persistent acute and chronic toxicity, others exhibited only acute toxicity, while others had no samples with a toxic signal. In addition, the number of WET samples collected varied between facilities due to differences in permit authorization date as well as some facilities missing their sample quarters. As a result of these findings, as well as feedback received from the states, EPA included a standardized approach to WET testing modelled after WET implementation guidance, specifically *Massachusetts Implementation Policy for the Control of Toxic Pollutants in Surface Waters.*

For acute toxicity, EPA is maintaining LC50 limits for those facilities where EPA conducted analyses of the facility's data and found that the discharge had a reasonable potential to cause or contribute to excursions above state water quality standards. See the limits in Appendix H. These facilities will continue to be required to conduct acute WET testing annually. For other continuous/intermittent discharges, those without acute limits, WET screening monitoring is now being required. The General Permit requires that permittees submit at least five acute WET results to demonstrate a lack of effluent toxicity. If toxicity is present, the monitoring requirement will continue, and EPA may set

acute WET limits. If no toxicity is found in the five samples, monitoring can be discontinued upon approval from EPA and the State. This change will help ensure that WET monitoring is only required for those facilities that have historical and/or current toxicity problems.

For chronic toxicity, EPA has determined that a case-by-case monitoring approach is more appropriate than a standardized approach for every facility. In making this determination EPA considered the following factors. For one, WET tests results varied between facilities, some facilities had persistent chronic toxicity while the majority did not exhibit chronic toxicity at levels of concern. In addition, chronic toxicity testing is not feasible for all discharges that fall into the continuous or intermittent category. The chronic WET test is a 7-day test requiring three samples over the course of that period. Some permittees do not discharge frequently enough to meet this schedule and therefore these facilities cannot adhere to the requirements of the tests. Another important factor is the nature of potable water treatment facility discharges. These facilities are not like the typical wastewater treatment facility where there can be significant changes in the influent water characteristics over the course of the permit term. Instead, these facilities use the same chemicals (e.g., alum, polymers, chlorine, phosphoric acid, etc.) over the course of the permit term and their source water tends to have more stable water quality given its use as a drinking water supply. Because of these factors, EPA finds that chronic toxicity testing is not always the most useful tool available to assess discharge toxicity. However, at the same time, some facilities demonstrated a clear record of toxicity and further monitoring and/or limits are necessary. As a result, the General Permit no longer requires regular chronic toxicity testing for all facilities or blanket C-NOEC limitations. However, the General Permit maintains the condition from earlier versions of this permit that EPA and/or the State may require WET testing (acute and/or chronic) on a case-by-case basis.

Toxicity limits are percent minimum values. EPA has added a "greater than or equal to sign" ($\geq$) to Appendix H to clarify this concept. An exceedance of a WET limit would be an LC50 or C-NOEC value below the limit. For example, say a facility had an acute WET limit of LC50 $\geq$ 100% and their WET test result came back as an LC50 = 85%, their test is exhibiting toxicity and they have exceeded their permit limit. However, if the same facility had a WET test result of 100%, then they would be in compliance with the permit limit. If permittees have any specific questions about WET testing, EPA recommends discussing WET test interpretation with their contract laboratory and/or the permit writer contact shown at the beginning of this document.

If a Permittee fails a toxicity test, the same procedure takes place as occurs for any other violation of a permit condition. EPA's Standard Conditions outline a permittee's responsibility to comply with permit limits and any penalties that may occur. See Part VII.A.1. of the Final General Permit. The failure of a toxicity test does not prohibit future discharges. However, measures should be taken to determine and address the source of the toxicity to prevent future toxic discharges/permit violations. EPA has published several guidance documents on conducting Toxicity Identification Evaluations. See

EPA's webpage at: https://www.epa.gov/npdes/permit-limits-whole-effluent-toxicity-wet#guidance.

Regarding testing during periods of higher water demand. WET tests do not directly incorporate the dilution of the receiving water on the day of sampling in their evaluation of whether an effluent sample is toxic. A dilution factor is a permitting concept that remains constant throughout the permit term. Take the scenario where a facility samples for WET once during a period where effluent flow is low and once when effluent flow is high. In both cases, the amount of effluent sample being collected and the dilution series used in the test will be the same. The amount of effluent or receiving water flow is not directly considered. That being said, there may be indirect effects of sampling when effluent flow is higher. For example, on a day with higher effluent flow, more treatment chemicals may have been used resulting in higher risk of toxicity. These periods of increased chemical use are periods of concern. As discussed in Response to Comment 9, EPA has modified the testing period due to logistical challenges raised by laboratories and permittees.

Neither EPA nor MassDEP certify analytical toxicity testing laboratories. Therefore, an official and comprehensive list of laboratories that can run these tests does not exist. However, MassDEP has provided a list of the WET laboratories that have participated during the past four years in Discharge Monitoring Report Quality Assurance Studies for NPDES Permittees:

- Aquatec Environmental, Inc. – Williston, Vermont
- Bioanalytical Corporation – DeWitt, NY
- Environmental Monitoring Laboratories – Wallingford, CT
- EnviroSystems, Inc. – Hampton, NH (*No longer operating*)
- GZA GeoEnvironmental, Inc. – Bloomfield, CT
- Lotic, Inc. – Unity, ME

In addition, New Hampshire Accredited Laboratories for WET testing may also be used in Massachusetts. A query of New Hampshire's Environmental Laboratory Accreditation Program webpage, https://www.des.nh.gov/water/drinking-water/new-hampshire-environmental-laboratory-accreditation-program, yielded the following laboratories that perform toxicity testing:

- Aquatec Environmental, inc. – Williston, VT
- Great Lakes Environmental Center – Columbus, OH and Traverse City, MI
- New England Bioassay – Manchester, CT
- Northeast Ohio Regional Sewer District Analytical Services – Cuyahoga Heights, OH

Comment 5 Per- and polyfluoroalkyl substances (PFAS)

EPA proposes requiring permittees to sample PFAS Analytes and Adsorbable Organic Fluorine during the first three semi-annual periods of the permit term using EPA Method 1633 and 1621. The City of Leominster Water Division notes that many PWS in Massachusetts have detected

PFAS through sampling required for compliance with MassDEP's Maximum Contaminant Level for six PFAS compounds. Water systems have been required to sample for the full suite of analytes specified in Method 537 or 537.1 per the MassDEP regulations. Given the significant expense of PFAS sampling (around $300 per sample), The City of Leominster Water Division finds it unnecessary for us to test for PFAS under this permit as well. When MassDEP noticed the 2022 Federal NPDES Dewatering and Remediation General Permit; the MWWA successfully argued that public water supplies proposing to discharge finished drinking water only, should be able to provide the results of the most recent finished water sampling for PFAS in lieu of a new sample, and we would suggest that the same substitution should be allowed in this permit as well.

The fact sheet describes a process where monitoring could be discontinued based on a site-specific determination, but one of the criteria is "*whether the samples had any detections on any of the PFAS analytes.*" Since PFAS is so ubiquitous in the environment, and the sensitivity of lab instrumentation fluctuates, "any detection" seems like an inappropriate metric. The City of Leominster Water Division believes if PFAS are detected below the MCL levels, that should be sufficient to provide a waiver from the discharge sampling.

The City of Leominster Water Division notes that Methods 1633 and 1621 are still draft and not validated (despite EPA noting on page 25 of the fact sheet that it expected a multi-lab validated method would be available by the end of 2022) and may be subject to further refinement; therefore, we feel it is inappropriate to require a system to utilize a method that is not validated. We have a major concern that there are laboratories available to perform these tests. We have reached out to many labs to find out if this testing is available with no success. It has been the EPA's past practice to stay PFAS testing requirements until the test method is promulgated, therefore, the City of Leominster would like the testing requirements for "PFAS Analytes" and "Absorbable Organic Fluorine" be stayed until six months post method promulgation.

The City of Leominster Water Division feels that EPA is using permittees as a means to conduct a research exercise. If EPA is interested in evaluating the full suite of PFAS analytes and Adsorbable Organic Fluorine in effluent, they should embark on a formalized research study, rather than doing it under the guise of a permit condition which falls on water ratepayers to fund. As an alternative, EPA could fully fund a small number of representative water systems to test for PFAS analytes and Adsorbable Organic Fluorine. Such an approach may have been employed for certain rounds of UCMR testing in the past. Further research needs to be conducted prior to placing these requirements on the backs of the water ratepayers.

Response 5

The Potable Water Treatment Facility General Permit regulates the discharge of drinking water treatment residuals, i.e., wastewater generated from the drinking water treatment process. Decisions made concerning sampling of finished water are not applicable as that water has been treated, in some cases for PFAS. The very nature of these facilities, treatment to remove harmful chemicals, necessitates a review of whether there are pollutants of concern in the wastewater generated from the treatment process. If the discharged water were the same in nature to the finished water, EPA agrees that sampling would be redundant and drinking water sampling could be used as a proxy for wastewater

sampling. But, unless a permittee can demonstrate that is the case, the General Permit will require PFAS monitoring of the discharged wastewater.

EPA disagrees with the commenter that the Maximum Contaminant Levels (MCLs) adopted under the Safe Drinking Water Act provide an appropriate threshold for determining whether to continue PFAS monitoring. The monitoring requirement is intended to provide the data necessary to determine, in the next permit issuance, whether there is reasonable potential to violate state water quality standards, including water quality criteria (WQC) intended to protect designated uses (in this case, recreation in and on the water, downstream drinking water uses, and aquatic life uses). Although Massachusetts has not yet adopted any PFAS WQC, EPA is in the process of developing recommended WQC for PFAS and there is a reasonable expectation that when this permit is reissued, state water quality criteria for PFAS will have been adopted. MCLs and WQC are not derived in the same manner.[4] As a result, WQC can be lower than MCLs. Therefore, if the MCLs were used as a threshold to discontinue monitoring after only three samples, EPA may not have the data necessary at permit reissuance to determine whether there is reasonable potential for the discharge to cause a violation of water quality criteria. Additionally, MCLs do not exist for all known compounds of PFAS and MCLs are being revised as research into the health and environmental effects of PFAS advances. For instance, while 2020 MassDEP regulations for PFAS set an MCL of 20 ppt for the sum of six PFAS[5], in 2023 EPA proposed MCLs for six PFAS[6] that are below the 20 ppt threshold.

EPA acknowledges that EPA Method 1633 is formally marked as a draft method. However, as of December 2022, three drafts have been issued for this test method, the latest of which includes multi-laboratory validation data for the wastewater matrix (the matrix of concern for this permit requirement). So, to be clear, this method is multi-lab validated. For EPA Method 1621, as of the writing of this document in April 2023, it has been single-lab validated but not multi-lab validated.[7] EPA has the authority to require the use of non-CWA-approved test methods under 40 CFR § 122.44(i)(1)(iv)(B).

EPA anticipates that laboratory availability will increase given EPA's ongoing progress in validating the draft methods, as well as the prevalence of PFAS monitoring requirements in other NPDES permits, e.g., EPA's Medium Wastewater Treatment Facility General Permit[8] issued in 2022. Additional time to find laboratories is also

[4] *See* EPA's explanations of how MCLs and WQC are derived at: https://www.epa.gov/sdwa/how-epa-regulates-drinking-water-contaminants#standards and https://www.epa.gov/wqc/basic-information-water-quality-criteria, respectively.
[5] See Massachusetts' 2020 PFAS Standard for Public Drinking Water Supplies. Available at: https://www.mass.gov/lists/massachusetts-pfas-drinking-water-standard-mcl#massachusetts-pfas-standard-for-public-drinking-water-supplies-.
[6] See EPA's 2023 Proposed National Primary Drinking Water Regulation for six PFAS. Available at: https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas.
[7] For more information, see EPA's CWA Analytical Methods for PFAS webpage at, https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas.
[8] Available at: https://www.epa.gov/npdes-permits/region-1-final-medium-wastewater-treatment-facilities-general-permit-massachusetts.

available for potable water treatment facilities given that permit authorization will not happen until at least 120 days from issuance of the Final General Permit and sampling will not be required until after discharge authorization. However, given the current draft status of the methods, EPA is willing to extend the timeline for when the monitoring requirements will begin. For EPA Method 1633, the Final General Permit is requiring that monitoring begins during the first full semi-annual period following six months from the permit authorization/effective date. For EPA Method 1621, the Final General Permit is requiring that monitoring begins during the first full semi-annual period six months from when EPA notifies the permittee that the method is multi-lab validated.

EPA does not agree with the Comment's claim that the monitoring requirement is "a research exercise." Water treatment facilities are known sources of PFAS, as many of them treat their water to remove PFAS. The monitoring requirement is a way to make facility-specific evaluations on whether PFAS is being discharged from any given facility at levels that could violate State Water Quality Standards, e.g., the narrative toxics standard at 314 CMR 4.05(5)(e). A facility that is concentrating any toxic chemical through their operations and discharging the concentrated effluent to a receiving water is a cause for further monitoring and, depending on the discharged concentrations, future effluent limitations. As discussed in the fact sheet, EPA has the authority to require such monitoring under CWA Section 308(a).

Concerning EPA Method 1621 and the requirement to monitor Adsorbable Organic Fluorine, see EPA's Response to Comment 24.

B. Comments from the Town of Andover

The Town of Andover, MA Water Division ("Andover") is writing to offer comments on the Draft National Pollution Discharge Elimination System (NPDES) Potable Water Treatment Facility General Permit (PWTFGP) proposed by the U.S. Environmental protection Agency (EPA) and the companion federal Clean Water Act (CWA) Section 401 certification and 2023 Draft Massachusetts Permit to Discharge Pollutants to Surface Waters (State Permit) for the same discharge(s) pursuant to the Massachusetts Clean Water Act being proposed by the Commonwealth of Massachusetts Department of Environmental Protection (MassDEP).

Comment 6 Total Residual Chlorine

The Maximum Daily and the Average Monthly limits detailed in Appendix H appear to be reversed. Footnote 7 on page 14 of the Draft Permit states the Freshwater acute (for maximum daily limitations) = 19 µg/L; and the Freshwater chronic (for average monthly limitations) = 11 µg/L.

Response 6

EPA is confirming that the values for Maximum Daily and Average Monthly Total Residual Chlorine (TRC) limits were switched. The lower value is meant to represent the Average Monthly Limit and the higher value is meant to represent the Maximum Daily Limit. Appendix H has been updated for the Final General Permit. It should be noted that the limits in Appendix H are not final but tentative and based on the assumption of no major changes to facility operations or dilution factors up to the time of NOI submittal.

Limits may be updated if such changes were documented in a Facility's NOI. Procedures for setting limits will follow those described in the Draft General Permit's Fact Sheet and Appendix I of the Final General Permit.

Comment 7 Per- and polyfluoroalkyl substances (PFAS)

EPA is proposing permittees to sample PFAS Analytes and Adsorbable Organic Fluorine during the first three semi-annual periods of the permit term using EPA Draft Methods 1633 and 1621, respectively. In accordance with MassDEP regulations, Andover has been conducting quarterly sampling for the full suite of PFAS analytes since January 2021. We find it unnecessary to require additional testing for PFAS under this permit as well. Additionally, we are required to sample for PFAS as part of the Unregulated Contaminant Monitoring Rule (UCMR5). Certainly, the data collected from these two efforts could be provided in lieu of new sampling.

Andover current sampling and analysis for PFAS is performed as specified in Methods 537 or 537.1. Andover also takes issue with the sampling methods noted in the draft permit. EPA Methods 1633 and 1621 are still in draft form and have not been validated.

Andover currently expends $370 per PFAS sample during routine quarterly sampling and will incur additional expenses when UCMR5 sampling takes place. Andover believes that EPA is using permittees as a means to conduct a research exercise and suggests that EPA consider a formal research study rather than requiring PFAS sampling as a permit condition, which falls on ratepayers to fund.

Response 7

This comment is similar in nature to a comment submitted by the Town of Leominster. See EPA's response to that comment at Response to Comment 5.

Comment 8 WET Testing

Andover has concerns requiring all permittees to test during the same quarter. Most permittees utilize the same laboratory for WET testing analysis, and we are worried that the laboratory in our area does not have the capacity to process all the samples in the same quarter. We are also concerned with the costs associated with WET Testing, which were on the order of $2,200 per sampling effort. During the WET testing sampling completed for the 2017 permit term, we had to coordinate and schedule our sampling efforts with the lab 6 to 8 weeks in advance. We request that EPA provide scheduling flexibility and respectfully request that WET testing be required once during the entire permit term.

Andover is concerned about the newly proposed Effluent Toxicity limitations in Appendix H. C-NOEC testing conducted for the 2017 permit term demonstrated 100% survival rates for our backwash discharge. We do not understand the percentage assigned for C-NOEC as an average monthly limit, which begs the question: Will PWS no longer be permitted to discharge should the limits be exceeded?

Response 8

Regarding the requirement to test during a single calendar quarter, EPA has addressed this comment as a response to a similar comment from New England Bioassay. See Response to Comment 9.

Regarding other WET testing concerns, EPA has addressed these concerns in a response to a similar comment from the Town of Leominster. See Response to Comment 4.

C. Comments from New England Bioassay

Comment 9

To whom this may concern:

I would first like to tell you a little bit about our lab.

New England Bioassay, Inc. specializes in toxicity testing and has been providing aquatic toxicity testing service for clients throughout the Northeast since 1986. We preform both Chronic (7 day) and Acute (48-96 hour) testing for clients. All toxicity tests are monitored daily for survival and chemistries. The Chronic testing has the addition requirements of daily sample renewals and monitoring of either reproduction or growth. Because of the extra requirements, the lab is staffed 7 days a week to be able to maintain the Chronic tests properly over the 7 day testing period. New England Bioassay staff also cultures many of the organisms required for toxicity testing which allows us to ensure the organisms are the proper age required for a test. Many Chronic (7-day) tests require organisms to be >24 hours old when the test is initiated.

New England Bioassay would like to submit a comment about the potable water Treatment permit, specifically Footnote 20 and when the Toxicity test "shall be conducted".

20. Whole Effluent Toxicity (WET) acute testing (LC50) is required once per year for all facilities. WET chronic testing (C-NOEC) is required once per year only for facilities with dilution factors less than 20:1. WET testing shall be conducted in accordance with test procedures and protocols specified in Appendix A and B for discharges to fresh waterbodies or Appendix C and D for discharges to marine waterbodies. The Permittee shall test the daphnid, Ceriodaphnia dubia, if their discharge is to a fresh waterbody or the Inland Silverside, Menidia beryllina, for discharges to marine waters. [\highlight] Testing shall be conducted in the third calendar quarter (July – September) of every year. [\highlight] Facilities subject to LC50 and/or C-NOEC limits are specified in Appendix H.

We believe that the requirement of the third Quarter testing for all Water Treatment facilities will put a burden on toxicity testing labs, including our lab. The third Quarter is a popular testing quarter for many permits that require toxicity testing once a year, and many toxicity clients that test throughout the year have additional toxicity requirements added on between July and September. Because of this, Q3 is already much busier than any other quarter of the year for us. Maintaining our high quality standards and completing all necessary work within the third

quarter time period is challenging, and if additional work were to be added through this proposed permit we are concerned it would be very difficult for us to meet the needs of our clients.

We believe a better solution would be require testing between April – September, giving the plants two quarters to get their testing in and allowing us to better meet our client's needs, fit testing into a reasonable schedule, and maintain high standards of testing.

Response 9

For the Draft permit, EPA modified the WET testing schedule from rotating calendar quarters to a single calendar quarter because of difficulties in tracking compliance within EPA's NetDMR system. An unintended consequence of the change is being raised by New England Bioassay and other commenters in this document. EPA recognizes that high demand for WET testing during a single calendar quarter could overwhelm regional laboratories. As a result, EPA has decided to accept the Commenter's recommendation of extending the testing period to April through September. The Final General Permit reflects this change.

It should be noted here that EPA made changes to the WET testing conditions in the General Permit as a result of other comments received. See EPA response to Comment 4. These changes will likely result in a reduced testing burden on permittees.

D. Comments from Massachusetts Water Works Association (MWWA)

Comment 10 Part I: Applicability and Coverage, C. Limitations on Coverage

Massachusetts Water Works Association (MWWA) is writing to offer comments on the draft National Pollutant Discharge Elimination System (NPDES) Potable Water Treatment Facility General Permit (PWTF) proposed by the U.S. Environmental Protection Agency (EPA) and the companion federal Clean Water Act (CWA) section 401 certification and 2023 Draft Massachusetts Permit to Discharge Pollutants to Surface Waters (State Permit) for the same discharge(s) pursuant to the Massachusetts Clean Waters Act being proposed by the Commonwealth of Massachusetts Department of Environmental Protection (MassDEP). Most of MWWA's comments will focus on the Massachusetts Draft Permit (No. MAG640000), but some comments might also be applicable to the New Hampshire Permit (No. NHG640000) and so we would encourage EPA to cross reference any of our applicable comments to that permit as well.

MWWA would like to state at the outset of our comments that while we recognize that EPA has a legal obligation to protect Waters of the United States, there needs to be a balance to ensure that Public Water Systems' (PWS) obligations under the Safe Drinking Water Act (SDWA) are not unduly compromised in the process. Limits on discharges which could require changes to drinking water treatment processes could cause simultaneous SDWA compliance issues which must be evaluated very carefully. The areas where we see potential issues arising between this permit and SDWA requirements concern coagulants, phosphorous, and total chlorine residuals. If anti-backsliding requirements prevent flexibility, this could be a problem for permittees trying to achieve compliance.

Response 10

A similar introductory comment from the Town of Leominster was responded to above. See Response to Comment 1.

Comment 11 Part I: Applicability and Coverage, C. Limitations on Coverage

The permit specifies that no new or increased discharge is allowed under this permit. MWWA believes that some threshold should be specified beyond which an increase would not be allowed, for instance, more than a 10% increase would prohibit coverage under the General Permit. An absolute "no increase in discharge" seems too stringent.

Response 11

EPA's prohibition on new or increased discharges is meant to cap discharges at the current permitted flow limit, i.e., 1.0 MGD. Any increase beyond this limit would require an antidegradation review that may necessitate site-specific requirements more suitable for an individual permit. Most facilities covered under this General Permit already discharge well below the permit limit and increases that result in flows below 1.0 MGD are not prohibited from receiving coverage. EPA has clarified in Part I.C.10 of the Final General Permit that increased discharges related to increases beyond the permitted flow limit.

Comment 12 Part II: Obtaining Authorization to Discharge, B. NOI Timeframes

Those who seek to do their own dilution study are told they must attach that to the NOI, but it could take longer than 60 days for that process. The permit allows for permittees to engage in pre-coordination for a compliance schedule if the permittee has concerns about complying with the permit, but it may be very difficult for the permittee to go through that negotiation process, while still submitting the NOI within the required timeframe of 60 days. It looks like a waiver process is available from the timeframe for submitting the NOI, but does the permittee have to formally ask for a waiver or will EPA suggest it?

Response 12

For the Dilution Factor Study Special Condition, a study proposal is required to be submitted with the NOI, not a completed dilution study. EPA encourages permittees to work with EPA and MassDEP as soon as possible after the effective date of the General Permit to ensure a complete study proposal will be submitted by the NOI deadline. If a dilution study proposal is approved, coverage under the General Permit may be delayed until the study is completed, or a compliance schedule may be added to the authorization.

A waiver to delay submission of the NOI must be requested by the permittee. The discharge will remain administratively covered under their existing General Permit until authorization under the 2023 General Permit is granted or denied.

Comment 13 Intermittent and Continuous Dischargers

We note that the distinction between intermittent and continuous dischargers is rather confusing. We question whether you really need to include intermittent as a separate category.

Response 13

For the purposes of this permit, there are no differences in permit requirements between intermittent and continuous discharges. This terminology was carried forward from the 2017 General Permit and is meant to acknowledge that most potable water treatment facilities discharge intermittently, in line with their backwash cycle, and not continuously. If discharge is infrequent, defined as less than once per month or twelve times per year, then permit requirements will vary as specified in Part III.A.1. and III.A.2.

Comment 14 Aluminum Criteria

MWWA has been engaged in discussions with the EPA Region 1 office since 2008 on the issue of numeric limits on Aluminum in NPDES permits. We are pleased that MassDEP has adopted revised Surface Water Quality Standards that incorporate EPA's newer methodology for calculating Aluminum criteria (Final Aquatic Life Ambient Water Quality Criteria for Aluminum 2018) and the multiple linear regression models contained in the Aluminum Criteria Calculator V. 2.0. We understand that MassDEP's Watershed Default Criteria will be utilized in this permit while permittees collect the data required for input into the calculator for site specific criteria limits. MWWA remains concerned that anti-backsliding provisions might prevent a permittee from utilizing a higher limit in the future and would encourage EPA to include language in the final permit that recognizes if site-specific criteria are less stringent than the watershed default, that a permittee will be allowed to meet the less stringent limit in future permits.

While MWWA appreciates that much progress has been made since 2008, we do still question the overall need for an Aluminum limit in these permits. We submitted substantial research in 2008 justifying that Aluminum has beneficial properties for water bodies, without causing harm to aquatic species.

Response 14

This comment is similar in nature to an earlier comment by the Town of Leominster. See EPA's response to that comment at Response to Comment 3.

Comment 15 Total Phosphorus

MWWA is particularly concerned with the provision in this permit to monitor Total Phosphorous for facilities that use and discharge phosphorous-containing chemicals. EPA Region 1's Drinking Water Program has taken a very strong stance on PWS's compliance with the Lead & Copper Rule (LCR), even going so far as to require a few communities to comply with provisions of the Revised Lead & Copper Rule before the rule is even in effect. PWS who use phosphorous chemicals for corrosion control do not want to risk changing treatment chemicals which may impact their corrosion control practices and subsequent compliance with LCR. While we understand that this is only a monitoring requirement in this permit, we also understand that monitoring often leads to future discharge limits as it has in this permit with the Aluminum limits and the Toxicity Criteria and EPA states the data will be evaluated to determine if more stringent requirements or discharge limits will be added in the future. We would caution EPA to review this data very carefully with special attention to evaluating simultaneous compliance issues, before considering implementation of any future requirements.

Response 15

The 2017 General Permit contained a similar condition requiring monitoring for facilities that use a phosphorus-containing chemical and discharge to a waterbody impaired for phosphorus or nutrient indicators. The Draft General Permit eliminated the stipulation that discharges only to impaired waters must monitor. One reason for this choice is the fact that even a small discharge could cause a phosphorus impairment if the dilution factor is low enough. Many facilities covered by this General Permit have little or no dilution or discharge to stagnant water bodies such as ponds or reservoirs where the risk of phosphorus-related impairment is higher. Pursuant to CWA § 301(b)(1)(C) and 40 CFR § 122.44(d)(1), EPA has an obligation to include permit limits for pollutants (such as phosphorus) that are necessary to achieve water quality standards.

EPA also recognizes that water treatment facilities have drinking water treatment requirements through the Lead and Copper Rule that make the use of phosphorus-containing chemicals more prevalent. However, EPA is not advocating that facilities change their treatment chemicals at this time and, as the comment points out, these are monitoring requirements and not effluent limitations. EPA would also note that we visited several facilities during draft permit development that are engineered to avoid this issue of compliance with the Lead and Copper Rule and effluent discharge of phosphorus-containing chemicals. These facilities are plumbed such that the water they use for backwashing is not the same as the finished phosphorus-treated water. Instead backwash water comes before final chemical addition. While not a perfect solution for every facility, this is a potential future option if water quality problems related to nutrient pollution are identified.

Comment 16 Per- and polyfluoroalkyl substances (PFAS)

EPA proposes requiring permittees to sample PFAS Analytes and Adsorbable Organic Fluorine during the first three semi-annual periods of the permit term using EPA Method 1633 and 1621. MWWA notes that many PWS in Massachusetts have detected PFAS through sampling required for compliance with MassDEP's Maximum Contaminant Level (MMCL) for six PFAS compounds. Water systems have been required to sample for the full suite of analytes specified in Method 537 or 537.1 per the MassDEP regulations. Given the significant expense of PFAS sampling (around $300 per sample), MWWA finds it unnecessary for Public Water Systems to test for PFAS under this permit as well. When MassDEP noticed the 2022 Federal NPDES Dewatering and Remediation General Permit; MWWA successfully argued that public water supplies proposing to discharge finished drinking water only, should be able to provide the results of the most recent finished water sampling for PFAS in lieu of a new sample, and we would suggest that the same substitution should be allowed in this permit as well.

The fact sheet describes a process where monitoring could be discontinued based on a site-specific determination, but one of the criteria is *"whether the samples had any detections on any of the PFAS analytes."* Since PFAS is so ubiquitous in the environment, and the sensitivity of lab instrumentation fluctuates, "any detection" seems like an inappropriate metric. MWWA believes if PFAS are detected below the MMCL levels, that should be sufficient to provide a waiver from the discharge sampling.

MWWA notes that Methods 1633 and 1621 are still draft and not validated (despite EPA noting on page 25 of the fact sheet that it expected a multi-lab validated method would be available by the end of 2022, it still isn't validated) and may be subject to further refinement; therefore, we feel it is inappropriate to require a system to utilize a method that is not validated. There should be no requirements for sampling until the methods are validated.

We are uncertain if these methods are the same as drinking water methods in requiring the processing of field blanks upon any detection in a sample? Because PFAS is ubiquitous in the environment, our experience on the drinking water side is that field blanks are routinely extracted and analyzed at the same time as the sample to help discern if there is any cross contamination of the sample. If they are, the processing of field blanks doubles the cost of the sampling. Also, obtaining PFAS result from labs takes weeks and so permittees have concerns about the ability to submit sample results on the DMRs within the specified time.

MWWA feels that EPA is using permittees as a means to conduct a research exercise. If EPA is interested in evaluating the full suite of PFAS analytes and Adsorbable Organic Fluorine in effluent, they should embark on a formalized research study, rather than doing it under the guise of a permit condition which falls on water ratepayers to fund. As an alternative, MWWA suggests EPA fully fund a small number of representative water systems to test for PFAS analytes and Adsorbable Organic Fluorine rather than making all the permittees sample. Such an approach may have been employed for certain rounds of Unregulated Contaminant Monitoring Rule testing in the past.

Response 16

EPA responded to similar concerns in a comment from the Town of Leominster. See Response to Comment 5.

EPA agrees that field blanks are valuable tools for determining if a detection of PFAS is due to contamination; however, the draft methods and the NPDES permit do not require the processing of field blanks.

Regarding concerns about sampling submission timing. PFAS sampling is set at a semi-annual frequency and samples must be submitted in NetDMR on the 15th day of the month following the end of the semi-annual period. If a Permittee has concerns about meeting that deadline, EPA recommends scheduling sampling as early during the monitoring period as possible. In addition, if a permittee were to sample during the appropriate calendar month but could not meet the DMR deadline due to delayed laboratory analysis, then they should contact EPA's Enforcement and Compliance Assurance Division (ECAD) to keep them informed of the delay and provide any necessary information.

Comment 17 Total Residual Chlorine

In Appendix H, one permittee noticed that the Maximum Daily and Average Monthly limits on Total Residual Chlorine appear to be reversed. We understand that EPA may have realized that they made an error in those values, but we are documenting it in our comments to be sure that EPA revisits that section and corrects any errors associated with those values.

The permit states:

"Limits and monitoring for total residual chlorine (TRC) are only required for discharges that have been previously chlorinated or contain residual chlorine. The maximum daily and average monthly concentrations of TRC allowed in the effluent are based on the appropriate water-quality criterion, listed below:

- *Freshwater acute (for maximum daily limitations) = 19 µg/L*
- *Freshwater chronic (for average monthly limitations) = 11 µg/L*
- *Marine acute (for maximum daily limitations) = 13 µg/L*
- *Marine chronic (for average monthly limitations) = 7.5 µg/L*

Site-specific limits are listed in Appendix H. TRC limits shall be calculated as described in Appendix I."

Regarding our ongoing concern with simultaneous SDWA compliance, MWWA sees that limits on chlorine residual could potentially conflict with current disinfection practices and future changes being contemplated to the Disinfection By-product Rule

Response 17

EPA is confirming that the values for Maximum Daily and Average Monthly Total Residual Chlorine (TRC) limits were switched. The lower value is meant to represent the Average Monthly Limit and the higher value is meant to represent the Maximum Daily Limit. Appendix H has been updated for the Final General Permit. It should be noted that the limits in Appendix H are not final but tentative and based on the assumption of no major changes to facility operations or dilution factors up to the time of NOI submittal. Limits may be updated if such changes were documented in a Facility's NOI. Procedures for setting limits will follow those described in the Draft General Permit's Fact Sheet and Appendix I of the Final General Permit.

Regarding conflicts between SDWA and CWA compliance. EPA acknowledges the concerns raised about joint CWA-SDWA compliance but emphasizes that in all the cases EPA has considered compliance with NPDES effluent limits or permit requirements do not necessitate changes that would impact SDWA-compliance. For example, facilities have many options for reducing TRC concentrations in their discharge, e.g., (1) backwashing filters with non-chlorinated water, (2) redesigning lagoons to increase residence time and facilitate further photodegradation of chlorine, and (3) in more extreme compliance scenarios, installing dechlorination systems for the discharged effluent.

Comment 18 WET Testing

MWWA recognizes that WET Testing was a requirement of the 2017 permit, and we support EPA dropping the frequency of testing for some permittees. We have major concerns about the requirement for all permittees to test during the same quarter. We have queried permittees, and those responding are all using the same lab. One permittee asked that lab about their capacity to process the samples if they were all submitted in the same quarter (which is the recreating period), and they said it would be a hardship for them to do it. EPA needs to provide scheduling

flexibility in the final permit to shift the WET testing requirements to other quarters in recognition that lab capacity may prohibit the analysis. Does EPA have a list of labs in New England approved for these analyses? Shipping overnight to other parts of the country adds considerable expense. If WET sampling passes the test, then future WET sampling should not be required. WET Testing is an expensive test, often costing a couple of thousands of dollars, funds which could be better spent addressing water systems' pressing infrastructure needs.

MWWA understands that the Chronic WET Test is a 7-day test with refresh samples required; it will be difficult, if not impossible, for intermittent discharges to satisfy this requirement if their discharge is not continuous during that 7-day period. This should be reconsidered by EPA.

MWWA is concerned with the new requirement for Effluent Toxicity limitations in Appendix H. This concept of Toxicity limits, while probably familiar to wastewater treatment facilities, is new to PWS. We see that percentages have been assigned for LC-50s and C-NOECs and understand those percentages relate to dilution factors, but we are unclear on how an annual test can result in a Monthly Average limit? Finally, it is unclear what happens if a permittee fails the Toxicity limitations? Are they no longer allowed to discharge? The provision of drinking water which meets Safe Drinking Water Act standards often requires the use of certain chemicals to achieve compliance. Many of these chemicals, such as Aluminum, have been used successfully in water bodies, with no harm to the aquatic species that live in our reservoirs or rivers. Public health protections must be considered over perceived environmental harm that these discharges could cause. We urge EPA to drop the toxicity limitations from this permit.

Response 18

EPA responded to similar concerns in comments from the Town of Leominster. See EPA's Response to Comment 4.

Comment 19 Dilution Factor Study

MassDEP and USGS did a dilution factor study for certain utilities in Massachusetts; EPA acknowledges this in the Fact Sheet but specifies that the data was only applicable to Aluminum and determining reasonable potential analysis and effluent limitations. Is there any part of the work that USGS did on dilution that could be applied to a study that permittees who want to submit for a site-specific dilution factor must do?

Section C of the special conditions it specifies "*Permittees in Massachusetts may conduct a model or dye study to determine a defensible dilution factor for their discharge. If a permittee intends to conduct such a study a study proposal shall be submitted to the Agencies for approval, as an attachment to their NOI submission."* As mentioned in our comments above, the idea that a study proposal would have to be attached to the NOI seems unreasonable, especially if the NOI is to be submitted within 60 days of permit issuance.

Response 19

The USGS study on dilution factors referred to in the comment is titled *Determining of Dilution Factors for Discharge of Aluminum-Containing Wastes by Public Water-Supply Treatment Facilities into Lakes and Reservoirs in Massachusetts*[9]. As explained in the

[9] USGS Scientific Investigations Report 2011-5136. Available at: https://pubs.er.usgs.gov/publication/sir20115136.

report, the study set out to determine dilution of aluminum from filter-backwash effluent. The reason that this study may not be applicable to other pollutants, is that an aluminum-specific settling velocity was used to derive the dilution factors. The only other pollutant parameter with dilution-adjusted limits in the General Permit is TRC. TRC does not have the same behavior as aluminum and is typically derived using more conservative mixing assumptions than the assumptions used in the USGS study. That being said, there is likely information from those studies that could be used by facilities to conduct their own dilution factor study. For example, input parameters such as reservoir area and volume could be used or updated in a new dilution study.

See EPA's response to MWWA's dilution comment above, Response to Comment 12.

Comment 20

In closing, MWWA urges EPA NPDES staff to consult closely with EPA Drinking Water Staff before finalizing this permit to ensure that Public Water Systems' compliance with Safe Drinking Water Act requirements (current and future) are not jeopardized by NPDES discharge limitations, or that PWS won't be held to anti-backsliding provisions if drinking water regulations change which require changes in treatment processes. Thank you for the opportunity to comment on this permit.

Response 20

EPA Drinking Water Staff have reviewed draft versions of this document as well as the General Permit and the final documents represent the conclusions of both NPDES and Drinking Water Staff.

E. Comments from Massachusetts Coalition for Water Resources Stewardship (MCWRS)

Massachusetts Coalition for Water Resources Stewardship (MCWRS) has reviewed the draft National Pollutant Discharge Elimination System (NPDES) Potable Water Treatment Facility (PWTF) General Permit proposed by the U.S. Environmental Protection Agency (EPA) and the companion federal Clean Water Act (CWA) section 401 certification and 2023 Draft Massachusetts Permit to Discharge Pollutants to Surface Waters (State Permit) for the same discharge(s) pursuant to the Massachusetts Clean Waters Act being proposed by the Commonwealth of Massachusetts Department of Environmental Protection (MassDEP). The following comments are offered:

Comment 21 Part I: Applicability and Coverage, C. Limitations on Coverage

Under the proposed general permit, no new or increased discharges would be covered. Given the variability in flows and the potential for community growth during the permit term, some level of increase should be allowed. Suppliers are not and should not become the governor of local housing and economic growth and development demands. As such, we would suggest that growth should be anticipated with an allowance of perhaps a 10-20% increase in flows should be allowable under the general permit.

Response 21

EPA responded to similar concerns in comments from MWWA. See EPA's Response to Comment 11.

Comment 22 Aluminum Criteria

MCWRS is pleased to see the new aluminum criteria finally being applied to this general permit after more than a decade of discussion. We remain quizzical about the need to regulate aluminum at all given the abundant natural occurrence in surface waters of New England but appreciate that better science is driving system specific limits.

MCWRS remains concerned about anti-backsliding provisions as they relate to future site-specific aluminum limits based on local water quality data rather than watershed defaults. EPA is encouraged to address this anti-backsliding matter in this permit with a finding that anti-backsliding would not apply should local, site-specific data result in a less stringent local limit.

Response 22

EPA responded to similar concerns in comments from the Town of Leominster. See EPA's response to that comment at Response to Comment 3.

Comment 23 Total Phosphorus

The inclusion of phosphorus monitoring with the hint of future limits on phosphorus in filter backwash effluent is of great concern. Corrosion control through addition of phosphorus compounds is a primary strategy to limit the leaching of lead from interior plumbing and lead services into the drinking water for hundreds of thousands of homes in Massachusetts. At a time when EPA is advancing changes to the Lead & Copper Rule and lead in water reduction strategies across the nation, it seems counterproductive and dangerous to be targeting a well-established and effective lead control chemical. MCWRS urges EPA to drop phosphorus monitoring and any thought of future limits on phosphorus in Potable Water Treatment Facility NPDES permits. Phosphorus is already a main focus in wastewater and stormwater NPDES permits and adequate environmental controls can be achieved in those sectors without the need to turn attention to drinking water treatment where the benefits of phosphorus addition far outweigh the risks.

Response 23

EPA responded to similar concerns in comments from MWWA. See EPA's Response to Comment 15.

Comment 24 Per- and polyfluoroalkyl substances (PFAS)

The requirement to test for Adsorbable Organic Fluorine (AOF) should not be included in the permit. MCWRS is not aware that AOF is a pollutant regulated under the Clean Water Act. Rather, it is a potential surrogate measure for PFAS but one needing further study and research. It should not be the role of permittees to fund and be responsible for analytical research that should lie directly with EPA. The Agency could fully fund such testing for a small, representative group of water systems as a research initiative, but this testing should not be a permit requirement.

Response 24

Similar comments regarding PFAS monitoring were addressed in Response to Comment 5.

As discussed in the fact sheet, EPA is authorized to require monitoring of Adsorbable Organic Fluorine (AOF) by § CWA 308(a). Further, EPA's national guidance recommends the use of the draft AOF Method 1621, as appropriate.[10] EPA is requiring this monitoring condition because some potable water treatment facilities are known sources of PFAS, a subcategory of AOF; however, the magnitude and frequency of known and unknown PFAS in these facilities' wastewater discharges is not fully understood and needs to be further characterized. These compounds are not naturally occuring and the research on their toxicity is rapidly evolving.[11]

As described in the documentation for the method, "Method 1621 is for use in the Clean Water Act (CWA) as a *screening method* to estimate the concentration of adsorbable organic fluorine (AOF) in aqueous matrices by combustion ion chromatography (CIC)." See Section 1.1 of Draft Method 1621.[12] EPA plans to use this method as described, as a way of screening facilities for further analysis if elevated levels of AOF are detected. The Draft Permit offered the option to phase AOF and individual PFAS monitoring out based on a demonstration of their absence in the discharge from three semi-annual samples. Given this method's function as a screening method, EPA is willing to amend the requirement to make it clear that the determination to eliminate AOF monitoring is separate from the determination to eliminate the PFAS monitoring condition. The Final Permit has been revised to require that AOF monitoring can be eliminated after three semi-annual samples once the Permittee demonstrates that AOF is not detected in the discharge.

Comment 25 WET Testing

WET Testing plays a much larger role in this draft permit than in previous general permits for Potable Water Treatment Facilities. EPA would require annual WET Testing by all permittees to be done in the third quarter (July-September). There are only a handful of laboratories in New England approved for such testing. Having all permittees testing at essentially the same time each year may overburden the limited laboratory capabilities. EPA should first confirm available laboratory capacity for WET Testing and then adjust the testing schedule accordingly so that it matches lab capacity.

Effluent Toxicity limitations for individual water systems as displayed in Appendix H are confusing. This would be annual testing, yet Appendix H describes the limitations as a Monthly

[10] Radhika Fox, Assistant Administrator, EPA to Water Division Directors, EPA Regions 1-10, April 28, 2022, Subject: "Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority." Available at: https://www.epa.gov/system/files/documents/2022-04/npdes_pfasmemo.pdf

[11] See EPA's current PFAS research for examples of recent science: https://www.epa.gov/chemical-research/research-and-polyfluoroalkyl-substances-pfas.

[12] Available at https://www.epa.gov/system/files/documents/2022-04/draft-method-1621-for-screening-aof-in-aqueous-matrices-by-cic_0.pdf.

Average. It is also unclear what a percentage limitation means for LC-50s and C-NOECs and how these are related to dilution factors. Further explanation of these limits would be appreciated.

Response 25

EPA responded to similar comments from the Town of Leominster above. See EPA's Response to Comment 4.

Comment 26 Environmental Justice Considerations

In the Fact Sheet, Section 8.0, EPA describes its review of the draft permit with an eye toward Environmental Justice. The Agency concludes that Environmental Justice communities would not be burdened by this permit given its intent to improve the environment. Further, EPA suggests that without the permit a community would have to invest in significant infrastructure to avoid an unauthorized discharge and those costs could be injurious to the Environmental Justice populations. EPA fails, however, to note the compliance costs for this and every other NPDES permit and how those costs are passed on to the income-limited Environmental Justice communities in the form of higher water/sewer rates. MCWRS urges EPA to consider permit compliance costs and their effects on local water/sewer rates when evaluating Environmental Justice considerations.

In closing, MCWRS is very concerned with the potential conflicts arising between Clean Water Act requirements through this permit and SDWA requirements that are or will be challenging public water systems. It is critical that EPA coordinate its efforts between federal and state water programs (drinking water and wastewater) so that water systems are not put in a position where drinking water quality and public health are risked in order to meet marginal environmental directives. Any time drinking water treatment processes are significantly modified carries a level of risk. Changing coagulants and corrosion control practices are significant modifications. Public water systems and regulatory agencies are still suffering the impacts of the Flint, Michigan situation and no one wants to see that repeated.

The Massachusetts Coalition for Water Resources Stewardship (MCWRS) is a nonprofit organization committed to promoting watershed-based policies and regulations that effectively manage and conserve water resources. MCWRS is unique in its focus on protecting municipalities' interests in an ever-changing regulatory environment. We promote using scientifically based, fiscally responsible approaches to realize environmental and community goals. Members include municipalities; public agencies that transport and treat drinking water, wastewater and stormwater; quasi-government agencies; and private organizations whose members are committed to the principles of stewardship and sustainability in protecting the environment and public health.

Response 26

As mentioned in the Fact Sheet, EPA takes the position that this permitting action will not have a disproportionate impact on overburdened communities. Less than 20% of facilities regulated by the General Permit are near or within overburdened communities. EPA does appreciate that dischargers of pollutants to waters of the U.S., including those in overburdened communities, may face changes to permit compliance costs as a result of

proposed changes to the General Permit. While permit limits must be set at levels that protect public health and the environment, EPA has the ability to consider cost impacts on a community when developing schedules for compliance with permit conditions. Recently issued guidance includes methods to evaluate the impact of compliance costs on communities, including the most economically vulnerable populations within those communities. See *Clean Water Act Financial Capability Assessment Guidance, February 2023*.[13] This guidance includes approaches to ensure that water and sewer service remains affordable for all, while at the same time avoiding the reduction of water quality or public health standards in lower-income communities, which would raise environmental justice concerns. Permittees that anticipate environmental justice conflicts through the imposition of NPDES permit requirements should reach out to EPA Region 1's Environmental Justice Division for further guidance and collaboration.

Regarding concerns raised with conflicts between SDWA and CWA requirements, EPA has addressed similar concerns in Response to Comments 1, 17, 20. If any permittee anticipates actual tangible conflicts between complying with CWA and SDWA requirements, EPA encourages the permittee to raise those with the agencies immediately. Permitting options, such as compliance schedules, exist that can help ensure enough time is available to minimize or eliminate the public health risks from any water or wastewater treatment changes.

[13] Available at: https://www.epa.gov/waterfinancecenter/clean-water-act-financial-capability-assessment-guidance.