

RESPONSE TO COMMENTS
NPDES PERMIT NO. NHG590000
MEDIUM WASTEWATER 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 Medium Wastewater Treatment Facilities (WWTFs) located in 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 General Permit # NHG590000 ("Draft General Permit"). The Response to Comments explains and supports EPA's determinations that form the basis of the Final General Permit. From November 13, 2024 through February 12, 2025, EPA solicited public comments on the Draft General Permit.

EPA received comments from:

- Town of Hooksett, dated January 22, 2025
 - Sheehan Phinney on behalf of the Town of Hooksett, dated February 11, 2025
 - Underwood Engineers on behalf of the Town of Hooksett, dated February 3, 2025
 - Osprey Owl Environmental, LLC, on behalf of the Town of Hooksett, dated January 20, 2025
- Town of Ashland, dated January 31, 2025
- Town of Lancaster, dated January 31, 2025
- Town of Jaffrey, dated February 3, 2025
- Town of Derry, dated February 5, 2025
- Town of Hanover, dated February 7, 2025
- City of Concord, dated February 7, 2025
- City of Claremont, dated February 11, 2025
- City of Dover, dated February 11, 2025
- Allentown Sewer Commission, dated February 11, 2025
- Town of Seabrook, dated February 12, 2025
- City of Somersworth, dated February 12, 2025
- Town of Hampton, dated February 12, 2025
- Town of Newport, dated February 12, 2025
- Town of Durham, dated February 12, 2025

- Town of Merrimack, dated February 12, 2025
 - Wright Pierce, on behalf of the Town of Merrimack, dated January 29, 2025
 - Osprey Owl Environmental, LLC, on behalf of the Town of Merrimack, dated December 31, 2024
- Town of Milford, dated February 13, 2025
- Massachusetts Water Resources Authority, dated February 12, 2025
- Conservation Law Foundation, dated February 11, 2025
- New Hampshire Water Pollution Control Association, dated February 12, 2025
- Anheuser-Busch, LLC, dated February 12, 2025
- Gail Lang, dated January 10, 2025

Although EPA’s knowledge of the WWTFs 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 General Permit and this response to comments document will be posted on the EPA Region 1 web site at: <https://www.epa.gov/npdes-permits/new-hampshire-npdes-permits>.

A copy of the Final General Permit may be also obtained by writing or calling Michael Cobb at cobb.michael@epa.gov or (617) 918-1369.

Table of Contents

I.	Summary of Changes to the Final Permit	4
II.	Responses to Comments	6
A.	Comments from the Town of Hooksett, on January 22, 2025.	6
B.	Comments from Sheehan Phinney on behalf of the Town of Hooksett, on February 11, 2025.	10
C.	Comments from Osprey Owl Environmental, LLC, on behalf of the Town of Hooksett, on January 20, 2025.	15
D.	Comments from Underwood Engineers on behalf of the Town of Hooksett, on February 3, 2025.	36
E.	Comments from Fred Welch, Town Manager, Town of Ashland, on January 31, 2025.....	40
F.	Comments from Jessica Cyr, Town Manager, Town of Lancaster, on January 31, 2025. ..	42

G.	Comments from Tony Cavaliere, Superintendent of Utilities, Town of Jaffrey, on February 3, 2025.	43
H.	Comments from Town of Derry, on February 5, 2025.	44
I.	Comments from Peter Kulbacki, P.E., Director of Public Works, Town of Hanover, on February 7, 2025.	63
J.	Comments from Earle M. Chesley, P.E., City of Concord, on February 7, 2025.	74
K.	Comments from Alex Gleeson, Director, Department of Public Works, City of Claremont, on February 11, 2025.	80
L.	Comments from John Storer, Director of Community Services, City of Dover, on February 11, 2025.	98
M.	Comments from Jeffrey Backman, Superintendent, Allenstown Sewer Commission, on February 11, 2025.	108
N.	Comments from William M. Manzi, III, River Town Manager, Town of Seabrook, on February 12, 2025.	115
O.	Comments from Robert M. Belmore, City Manager, City of Somersworth, on February 12, 2025.	122
P.	Comments from James Sullivan, Town Manager, Town of Hampton, on February 12, 2025.	133
Q.	Comments from Kyle Harris, Town Manager, Town of Newport, on February 12, 2025.	138
R.	Comments from Richard K. Reine, Director of Public Works, Town of Durham, on February 12, 2025.	147
S.	Comments from Paul Micali, Town Manager, Town of Merrimack, February 12, 2025.	160
T.	Comments from Wright Pierce on behalf of the Town of Merrimack, on January 29, 2025.	181
U.	Comments from Osprey Owl Environmental, LLC, on behalf of the Town of Merrimack, on December 31, 2024.	197
V.	Comments from Joe Ducharme, Jr., PE, BCEE, on behalf of the Town of Milford, on February 13, 2025.	213
W.	Comments from David Coppes, Chief Operating Officer, Massachusetts Water Resources Authority, on February 12, 2025.	216
X.	Comments from Jillian Aicher and Tom Irwin, Conservation Law Foundation, on February 11, 2025.	224
Y.	Comments from Aaron Costa and Christopher Perkins, New Hampshire Water Pollution Control Association, on February 12, 2025.	239
Z.	Comments from Adam Dumville, Anheuser-Busch, on February 12, 2025.	247
AA.	Comments from Gail Lang, on January 10, 2025.	257

I. Summary of Changes to the Final Permit

1. The Adaptation Plan requirement has been removed from the Final Permit. See Response 2.
2. The reference to Method 1633 for PFAS monitoring has been changed to Method 1633A and the units for reporting Adsorbable Organic Fluorine (AOF) have been changed to µg/L. See Response 11.
3. Part II.A.1, footnote 24 has been updated to indicate that “If the receiving water is frozen over during any visual inspection, the Permittee may simply note this in the annual summary for that month.” See Response 13.
4. The second bullet under Part II.H.5.a has added language to clarify that the source “may have been due to the discharge.” See Response 16.
5. The third bullet under Part II.H.5.a has been removed. Instead, a requirement under footnote 24 of Part II.A.1 has been added to immediately test for oil & grease if an oily sheen is observed. See Response 16.
6. The new aluminum limit for Hooksett has been removed. See Response 17.
7. A typographical error referencing footnote 14 instead of footnote 15 has been corrected. See Response 21.
8. The new phosphorus limit for Derry has been removed and replaced with a monthly monitoring requirement. See Response 43.
9. Based on a revision of the 7Q10 and dilution factor, several effluent limitations for Claremont have been revised. See Response 66.
10. The benthic survey in Part II.H.6 has been revised to include standard protocols. See Response 75.
11. The aluminum limit for Allenstown has been removed. See Response 90.
12. The seventh requirement in the list in Part II.I related to pollutant scans has been removed. See Response 92.
13. Total nitrogen monitoring for Seabrook has been removed. See Response 98.
14. The automatic benthic survey requirement in Part II.H.6 has been revised to apply only on a case-by-case basis based on any known or suspected detrimental impact to the benthic community. Also, “potential” and “from the discharge” have been added. See Response 101.
15. The duplicate reference to May and October in Part II.A.1 of the Somersworth draft authorization was corrected. See Response 104.
16. The copper limit for Somersworth has been removed. See Response 106.
17. A provision has been added to Part II.H.5 indicating that the WET re-tests must be conducted within the specified timeframes “or as soon as possible thereafter based on factors outside the Permittee’s control (*e.g.*, limited lab availability). The Permittee must document the justification for any re-tests conducted after these timeframes and include the justification with the re-test results.” See Response 120.
18. An extension to Part II.C.1.e.(1) Sewer System Operation and Maintenance Plan from 6 months to 12 months has been included for Durham, Dover, Somersworth and Jaffrey. See Response 142.

19. Merrimack's BOD₅ limits have been updated to 1,265 lb/day (monthly ave) and 2,497 (daily max), and TSS limits have been updated to 1,448 lb/day (monthly ave) and 2,946 lb/day (daily max). See Response 145.
20. The benthic survey requirement in Part II.H.6 has been updated to require the report to compare findings with NH water quality standards for the benthic environment (*i.e.*, Env-Wq 1703.03(c)(1) and Env-Wq 1703.08(b)). See Response 155.
21. The copper limits for Merrimack have been removed. See Response 184.
22. Parts II.E.4 and II.F.6 were updated to indicate that PFAS monitoring of industrial users should begin in the first full calendar year after the effective date of the *authorization* (rather than from the effective date of the permit). See Response 193.
23. A toxicity response plan to notify a list of local/state fish and wildlife officials and/or environmental emergency responders has been added to Part I.H.5 of the Final General Permit. This plan specifies that if the Permittee identifies a sudden and significant death of large numbers of fish and/or shellfish in the receiving water that is not likely caused by the discharge, the Permittee should notify the appropriate officials who can investigate and address the environmental concern most expeditiously. See Response 198.
24. The word "appropriate" has been added to Part II.F.2.i regarding pretreatment enforcement. See Response 201.
25. The notification requirement at Part II.F.4.a has been updated to say: *"The Permittee shall notify EPA within 60 days of the introduction of new pollutants from any new SIUs, new connections at a permitted SIU, or any amendment to an existing SIU permit. All other new permits will be reported in the annual pretreatment report."* See Response 202.
26. The second sentence in Part II.B.1 (Unauthorized Discharges) has been updated to the following: *"For any pollutant without an effluent limitation in this permit, any pollutant loading greater than the proposed discharge (the "proposed discharge" is based on the chemical-specific data and the facility's design flow as described in the permit application, or any other information provided to EPA during the permitting process) must be reevaluated, and the permit must be modified or reissued if the need for any new effluent limitations is identified."* See Response 209.
27. Newport is under an administrative order (AO) to upgrade from aerated lagoons to an activated sludge treatment process. The Draft General Permit proposed a change in relevant requirements on September 30, 2026, based on the anticipated completion date of the upgrade as described in the AO at that time. This date has since been extended to June 30, 2027, so the relevant requirements in the Final General Permit have been updated to reflect this later date.

II. Responses to Comments

Comments are reproduced below as received; they have not been edited.

A. Comments from the Town of Hooksett, on January 22, 2025.

Comment 1

Thank you for the opportunity to provide comments on the Draft Medium General Permit for Hooksett. The purpose of this letter is to provide an estimate of Hooksett WWTF's anticipated cost over a twenty-year period if all these new testing and adaptation requirements are met.

WWTF Updates

Hooksett has taken a very proactive approach to maintaining and upgrading their treatment plant, lift stations, and collection system. We have installed at the treatment facility all new headworks, IFAS tanks modifications, Aeration blower piping, Scada based aeration control valves, hydraulic flow through the plant, clarifier mechanical, automated need paced chemical dosing, and a solar power generation field. We are currently undertaking upgrading our solids handling from a belt filter press to two screw presses.

We are currently updating our Golden Gate and Merrimack Street pump stations with all new electrical, energy efficient pumps, and a generator at Golden gate. A new force main has been designed from our Martins Ferry Pump Station to the treatment plant-it is scheduled to bid next month. The new force main is being relocated away from the Merrimack River as a safety measure against both flooding and an SSO to the river.

All the monies spent on these upgrades and improvements are based upon long-term cost savings, better wastewater treatment, resiliency, and leveling the cost to our ratepayers. Hooksett WWTF is solely funded by sewer user fees and rates and operated as an Enterprise Fund. This does not permit operating by raising taxes. The extensive testing and adaptation planning in this permit does not affect any changes to anything except add cost to our ratepayers.

Testing & Reporting Cost Implications

Our current testing and reporting on our permit keep us well within current regulations and limits. The amount of extra testing reads like a plant having process or permit violation issues- Hooksett does not have either of those issues. Testing of the river should fall under costs incurred by USEPA or NHDES, not each individual plant. The permit currently in draft would require an additional 456 tests, 134 new reports, and 503 man hours to complete. The total cost to our ratepayers for this level of testing and reporting is approximately \$200,000- \$1.00 per thousand gallons. That would be an 8.8% increase to rates with no value added to the ratepayers. We see this as an extraordinary cost for a fishing expedition by regulators. (see appendix 1).

Response 1

EPA acknowledges that all testing and reporting requirements have a modest cost, however, EPA has only included those requirements deemed necessary to ensure data are available to support EPA's future permitting decisions for the protection of water

quality standards. As a general note, EPA has broad authority under the CWA and NPDES regulations to prescribe the collection of data and reporting requirements in NPDES Permits. *See* CWA § 308(a)(A), 33 U.S.C. § 1318(a)(A) (specifying that permittees must provide records, reports, and other information EPA reasonably requires); CWA § 402(a)(2), 33 U.S.C. § 1342(a)(2) (requiring permittees to provide data and other information EPA deems appropriate); 40 CFR § 122.41(h) (permittees shall furnish “any information” needed to determine permit compliance); 40 CFR § 122.44(i) (permittees must supply monitoring data and other measurements as appropriate); *see also, e.g., In re City of Moscow*, 10 E.A.D. 135, 170-71 (EAB 2001) (holding that EPA has “broad authority” to impose information-gathering requirements on permittees); *In re Town of Ashland Wastewater Treatment Facility*, 9 E.A.D. 661, 671-72 (EAB 2001) (holding that CWA confers “broad authority” on permit issuers to require monitoring and information from permittees); *In re Avon Custom Mixing Services, Inc.*, 10 E.A.D. 700, 708 (EAB 2002) (“The Board has emphasized that monitoring data play a crucial role in fulfilling the objectives of the CWA and its implementing regulations.”); *Id.* at 709 (“where the monitoring relates to maintaining State water quality standards... nothing in the CWA or the implementing regulations constrain the Region’s authority to include monitoring provisions.”). EPA requires monitoring necessary to characterize the discharge, sludge and receiving water(s) and ensure sufficient data are available for future permitting decisions.

Further, EPA may require monitoring even when corresponding water quality criteria have not yet been established. *E.g. In re Town of Concord*, 16 E.A.D. 514, 541-542 (EAB 2014) (EPA may impose monitoring requirements “regardless of a pollutant’s potential to cause or contribute to a water quality violation, and regardless of whether pollutant discharges are restricted by an effluent limit.”) In fact, Congress specifically contemplated that EPA would require monitoring to, among other things, “assist in the development” of standards and limitations under the Act. CWA § 308(a). To this end, data collected from a permit’s monitoring requirements is often critical in future permit cycles in determining the need for effluent limitations and, if appropriate, calculating effluent limitations. It is reasonable to require monitoring when there is “little data” otherwise available. *In re Avon Custom Mixing Services*, 10 E.A.D. 700, 709 (EAB 2002).

However, EPA has also carefully considered all comments submitted on the Draft General Permit and, in some cases, has made changes that may alleviate some of these costs. See list of changes above.

With respect to this specific commenter (Hooksett), EPA also notes that this permit was last issued in 2013. Therefore, this new permit incorporates 12 years of permitting updates which EPA acknowledges will result in several new testing and reporting requirements given that the scope of pollutants of concern and available data has expanded over these years. However, EPA reviewed the list of new tests and reports summarized in Appendix 1 of the comment (not reproduced here) and finds what appear to be several mistaken or exaggerated estimates.

Regarding tests, one example is that the spreadsheet estimates 209 tests (of the total 456) for nitrogen, as follows: TKN (35), Nitrate (35), Nitrite (35), Total Nitrogen (52), and Rolling Annual Total Nitrogen (52). EPA estimates that the Draft General Permit requires approximately 35 TKN tests per year and 35 Nitrate + Nitrite (measured together using one sample) tests per year. Total nitrogen and rolling annual average total nitrogen are then calculated based on those TKN and Nitrate + Nitrite results, so the total number of tests annually is 70 (*i.e.*, 139 fewer than estimated in the appendix). Further, the spreadsheet attempts to subtract the number of tests in the 2013 Permit but, in fact, does not subtract anything. Therefore, the estimate of 456 annual tests actually represents the total number of tests and not the total number of “additional” tests as suggested by the comment.

Regarding reports, the spreadsheet includes 66 annual reports for nitrogen (out of the total estimate of 134). EPA is not aware of any nitrogen-specific reports in the permit (other than 12 monthly DMR submissions which include nitrogen and most other regulated pollutants in one monthly report). Further, the spreadsheet does not appear to even estimate the number of reports in the 2013 Permit (to subtract them) but still refers to the estimated 134 reports as “new” reports.

Although EPA has not flagged them here, there appear to be several other mistakes or exaggerations that do not seem to match the actual permit requirements. Rather, EPA simply concludes that this comment significantly overestimates the costs associated with this permit reissuance.

Comment 2

Adaptation Planning and Implementation Cost Implications

The adaptation planning and implementation is going to be extremely costly for Hooksett WWTF. This plant has not in its existence had any flooding issues. Planning for a once-in-a-lifetime event may seem prudent on paper but the actual planning and implementation will most likely prove to be an exercise in futility. If we plan for three feet above the 100-year flood mark and we get the 500-year flood we will most likely be inundated with water anyhow. Most flooding events, like those we have seen in Vermont and northern New Hampshire in recent years, come without notice or time to get your flood protections in place. After flood protection is in place accessing the plant or escaping from the plant before the water rises high enough to trap personnel is problematic. If the plant loses electrical power the solar field automatically disconnects, and the generator starts. We have enough fuel for seven days in our tank-if flood waters don’t recede before power is restored, we would be inundated. The estimated cost to implement this for Hooksett WWTF is \$46,000,000.00 at today’s cost. With planning for the next five years and then an implementation schedule for say the five years following that-prices could easily double estimates. If it started today and a \$50,000,000 loan at 3.5% was approved, the increase in rates would be \$9.30 per thousand gallons on top of the rate existing. That increase would be a 126% jump in rates. (see appendix 2).

Response 2

The proposed Adaptation Planning requirements have been removed from the Final General Permit. In response to the concerns of various commenters throughout this document, EPA considered whether the aims of the proposed requirements could be satisfied without imposing new requirements in the permit and determined, as described below, that existing, non-permit programs will provide permittees opportunity to conduct a comparable assessment of their flood risks. To that end, EPA notes that the permittee remains responsible for complying with all effluent limitations expressed in Part II.A.1 of the General Permit, even in the event of a major storm or flood.

On the federal level, for example, municipalities must engage in flood risk assessment when utilizing the Clean Water Act State Revolving Fund,¹ and the Federal Emergency Management Agency (FEMA) requires a hazard mitigation plan when municipalities apply for certain types of non-emergency disaster assistance.² At the State Level, NHDES's Resilience and Adaptation Program aids municipalities and utilities in identifying natural disaster and climate related vulnerabilities within their systems and assisting with corrective implementation measures.³ Additionally, many municipalities and regional organizations have developed their own local flood risk tools and requirements.⁴ As described in the Fact Sheet, the goal of the Draft General Permit requirements was to reduce and/or eliminate noncompliant discharges that result from impacts of major storm and flood events through advanced planning and flood risk mitigation measures. EPA is persuaded that non-permit requirements, such as those described above, will provide permittees with a comparable assessment of their flood risks as the Draft General Permit intended to generate, and accordingly will accomplish the Draft General Permit's objective of ensuring that effluent limitations are achieved even during major storm and flood events. EPA has thus decided to remove the Adaptation Planning requirements from the Final General Permit to improve efficiency and reduce redundancy.

EPA's decision is consistent with the aims of Executive Order 14239, Achieving Efficiency Through State and Local Preparedness (March 18, 2025) ("Federal policy must rightly recognize that preparedness is most effectively owned and managed at the State, local, and even individual levels, supported by a competent, accessible, and efficient Federal Government"; "it is the policy of the United States that my Administration streamline its preparedness operations; update relevant Government policies to reduce complexity and better protect and serve Americans; and enable State and local governments to better understand, plan for, and ultimately address the needs of their citizens.").

¹ <https://www.epa.gov/system/files/documents/2022-09/Federal%20Flood%20Risk%20Management%20Standard%20.pdf>.

² <https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/requirements>

³ <https://www.des.nh.gov/news-and-media/blog/providing-planning-synergy-integrating-resilience-adaptation-asset-management>

⁴ See, e.g., City of Portsmouth, NH, Hazard Mitigation Plan Update 2024, https://www.portsmouthnh.gov/sites/default/files/2024-07/PortsmouthHazardMitigationPlanUpdate2024_DRAFT_w_maps.pdf.

As stated above, removal of these provisions does not alter the requirement for permittees to ensure compliance with the permit limits.⁵ As detailed in the Fact Sheet, flood risk is a significant issue for POTWs in New England and the impacts in recent years are well-documented. It is EPA's expectation that municipalities will avail themselves of the various tools described above as well as available federal guidance⁶ to ensure risks to their POTWs are mitigated to allow for permit compliance. Additionally, should circumstances change such that flood planning requirements outside the scope of the permit are insufficient to protect Water Quality Standards, EPA may propose additional operation and maintenance flood planning requirements in subsequent permits.

Comment 3

Total Sewer User Rate Implications

The implementation of this permit as written would have a huge burden put upon the rate payers of Hooksett. The rates if the permit removes the testing and adaptation portions would most likely remain at a 3% increase compounded per year for a rate of \$7.40/thousand in 2025 to a rate of \$13.24/thousand in 2044-a 79% increase over 20 years. If the testing and implementation are kept in the permit the rates would be \$17.70/thousand in 2025 to a rate of \$24.47/thousand in 2044. This is a 331% increase over existing rates. The current yearly bill for a family of four is \$792.00. The increased cost of this permit would raise the bill to \$2621.52 an increase of \$1829.52.

These rates assume no upgrades, modifications, or additional requirements added to future permits. This also assumes 3% annual increases will be enough to cover inflation as reported by the consumer price index. (see appendix 3)

Response 3

See Responses 1 and 2. EPA reiterates that the estimated cost of testing is significantly overestimated.

B. Comments from Sheehan Phinney on behalf of the Town of Hooksett, on February 11, 2025.

I am writing on behalf of our client, the Hooksett Sewer Commission ("HSC"), to provide HSC's comments on the Draft Permit. While HSC's comments are extensive, they are meant to be constructive. As a general observation, HSC's hope is that any necessary permitting framework be driven by the best available science, all to the benefit of Hooksett and its surrounding communities. As part of those efforts, HSC is submitting comments from experts in this field.

⁵ EPA notes that an "upset" "constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations [under certain circumstances]," but it does not apply to *water-quality* based permit effluent limitations. 40 C.F.R. § 122.41(n).

⁶ For example: <https://www.epa.gov/waterutilityresponse/flood-resilience-basic-guide-water-and-wastewater-utilities>.

Comment 4

HSC objects to requirements in the Draft Permit that are imposed based upon "contributing" to a violation of a water quality standard. While the standard "or contributes" may be appropriate when USEPA is undertaking the "reasonable potential" evaluation and determining whether a water quality-based limit should be included, it is not the appropriate standard for imposing liability upon the permittee and does not define the degree of pollutant reduction that must be achieved. Imposing a "cause or contribute" requirement is inconsistent with the Clean Water Act Section 301(b)(1)(C) and 40 C.F.R. §122.44(d).

Response 4

The comment suggests it is appropriate for EPA to use "cause or contribute" framework for purposes of reasonable potential analysis, but not for "imposing liability upon the permittee." The comment does not specify any provisions which fall within the ambit of this general critique. EPA is unable to identify any such provisions either, as the Permit does not contain a single provision using the "cause or contribute" formulation. Rather, EPA used the "cause or contribute" framework when conducting reasonable potential analysis which the Commenter suggests is appropriate, and, in any case, is required under 40 C.F.R. § 122.44(d). The degree of pollutant reduction that must be achieved is defined in the effluent limits which are derived pursuant to a reasonable potential analysis.

Comment 5

HSC objects to the imposition of "generic prohibitions" without clearly defined effluent limitations for each discharge. Finalization of the Draft Permit should be deferred until the United States Supreme Court issues its ruling in *San Francisco v. EPA*, Case No. 23-753, which will determine the scope of 33 U.S.C. §1311(b)(1)(C). HSC agrees with the City and County of San Francisco that Section 1311(b)(1)(C) does not provide for the imposition of generic prohibitions.

Also, the Draft Permit requirements should not be more stringent than the existing Permit requirements if such requirements are not reflected in applicable federal regulations or are subject to as-of-yet unfinalized future regulatory changes.

Response 5

The comment does not object to any specific permit provisions, but rather lodges a general critique against "generic prohibitions." Although it is not entirely clear to which permit provisions the commenter refers, EPA notes that the General Permit does not contain provisions analogous to the "end-result" provisions at issue in the *City and County of San Francisco v. EPA*, 145 S.Ct. 704, which was decided on March 4, 2025.⁷ According to the Supreme Court decision, "end-result" requirements are "permit provisions that do not spell out what a permittee must do or refrain from doing but

⁷ Supreme Court decision available at: https://www.supremecourt.gov/opinions/24pdf/23-753_f2bh.pdf

instead make a permittee responsible for the quality of the water in the body of water into which the permittee discharges pollutants.”

Rather than including any provisions that may be considered “end-result” requirements in this General Permit, EPA’s permitting approach includes several new permit requirements (as described on pages 6, 8-9 and 36-41 of the Fact Sheet) designed to gather information needed to establish requirements and/or effluent limitations on the discharge in the future. The comment does not address this approach. EPA notes that this approach is in accord with the recommendations of the Supreme Court decision. Specifically, page 20 of the decision concludes with the following statement:

“In sum, we hold that §1311(b)(1)(C) does not authorize the EPA to include ‘end-result’ provisions in NPDES permits. Determining what steps a permittee must take to ensure that water quality standards are met is the EPA’s responsibility, and Congress has given it the tools needed to make that determination. If the EPA does what the CWA demands, water quality will not suffer.”

In this case, EPA has determined that the monitoring requirements described in the sections of the Fact Sheet mentioned above are necessary steps that the CWA demands to ensure sufficient information is available to protect water quality.

The comment also suggests that the new permit requirements should not be more stringent than the existing permit requirements based on unfinalized regulatory changes. To the extent this refers to the Supreme Court decision itself, EPA notes that the case has been finalized but is not a regulatory change and EPA is not aware of any regulatory changes that may be implied here. In any case, EPA disagrees that the new permit may not be more stringent than the existing permit and reiterates that EPA must include whatever requirements are necessary to protect water quality. *See CWA § 301(b)(1)(C).*

Comment 6

As reflected in the substantive comments, the overarching concern is with the expected costs imposed upon a small municipal wastewater treatment facility and the resident ratepayers by the additional requirements imposed by the Draft Permit.

Many of the requirements of concern relate to monitoring of PFAS and adsorbable organic fluorine. As indicated above, HSC objects to monitoring requirements that are not based upon finalized rulemaking under the Clean Water Act. The Fact Sheet itself acknowledges that the relevant rulemaking is still pending. Until USEPA finalizes validated testing methods with documented accuracy and precision, monitoring requirements should not be included in the Draft Permit. Furthermore, Hooksett currently does not have and should not be required to have an Industrial Pretreatment Program given the lack of an approved testing mechanism and the substantial costs related to testing of individual connections in the collection system.

Response 6

EPA recognizes that the General Permit includes a variety of new monitoring requirements and that these may result in cost increases. Given that many of the eligible WWTFs have permits which expired many years ago, EPA acknowledges that there are various differences in monitoring frequencies and other standard permit requirements in the existing individual permits.

EPA notes that these PFAS and AOF monitoring requirements will ensure that EPA obtains the necessary information for the next permit reissuance. As a general note, EPA has broad authority under the CWA and NPDES regulations to prescribe the collection of data and reporting requirements in NPDES Permits. *See* CWA § 308(a)(A), 33 U.S.C. § 1318(a)(A) (specifying that permittees must provide records, reports, and other information EPA reasonably requires); CWA § 402(a)(2), 33 U.S.C. § 1342(a)(2) (requiring permittees to provide data and other information EPA deems appropriate); 40 CFR § 122.41(h) (permittees shall furnish “any information” needed to determine permit compliance); 40 CFR § 122.44(i) (permittees must supply monitoring data and other measurements as appropriate); *see also, e.g., In re City of Moscow*, 10 E.A.D. 135, 170-71 (EAB 2001) (holding that EPA has “broad authority” to impose information-gathering requirements on permittees); *In re Town of Ashland Wastewater Treatment Facility*, 9 E.A.D. 661, 671-72 (EAB 2001) (holding that CWA confers “broad authority” on permit issuers to require monitoring and information from permittees); *In re Avon Custom Mixing Services, Inc.*, 10 E.A.D. 700, 708 (EAB 2002) (“The Board has emphasized that monitoring data play a crucial role in fulfilling the objectives of the CWA and its implementing regulations.”); *Id.* at 709 (“where the monitoring relates to maintaining State water quality standards... nothing in the CWA or the implementing regulations constrain the Region’s authority to include monitoring provisions.”).

As discussed in the Fact Sheet at 48, the purpose of this monitoring and reporting requirement is “to better understand potential discharges of PFAS from this facility and to inform future permitting decisions, including the potential development of water quality-based effluent limits on a facility-specific basis.” These permitting decisions may include whether there is reasonable potential to cause or contribute to a violation of the State water quality standards in the next permit reissuance, and if there is, to inform the development of numeric effluent limits or pollutant minimization practices, or some combination.”

Regarding the test methods, see Response 11 below.

Regarding the Industrial Pretreatment Program (IPP), EPA confirms that Hooksett does not have an IPP under this General Permit. The PFAS monitoring of industrial users does not constitute a pretreatment program. However, EPA considers it necessary to sample the categories of industrial users identified in the permit at least once per year to identify the specific sources of PFAS and to inform future decisions regarding source reduction. EPA notes that the Permittees may incorporate requirements on industrial users through regulatory mechanisms such as local limits, pretreatment programs, industrial discharge

permits, and/or sewer use ordinances. Such requirements may include annual PFAS monitoring. Thus, the Permittees may transfer all or part of the monitoring responsibilities associated with this monitoring requirement to specific industrial users, as the Permittees deem appropriate.

Comment 7

The extensive requirements for adaptation planning are another major area of concern. The Draft Permit exceeds USEPA's statutory authority to require Adaptation Planning. The Draft Permit relies on USEPA's authority under 40 C.F.R. §122.41(e) to require "proper operation and maintenance" of facilities such as the Hooksett Wastewater Treatment Facility. The statutory basis upon which USEPA relies refers to a grant program for eligible facilities and does not create a mandate for the unfunded and costly planning process set forth in the Draft Permit. Furthermore, in light of *Loper Bright Enterprises v. Raimondo*, Case Number 22-451 (June 28, 2024), deference to an agency's interpretation of its own authority is no longer presumed.

Response 7

See Response 2.

Comment 8

The Draft Permit also sets forth an aluminum limit which is no longer necessary or valid. The limit set was based on pre-2020 data which reflected a treatment technology no longer in use at the Facility. It is inappropriate to utilize non-permit related plant operations data or WET testing data to establish effluent quality or background levels of pollutants in receiving waters when setting permit limits. The aluminum limit should be eliminated since it is not based on an exceedance of a water quality limit.

Response 8

See Response 17.

Comment 9

With respect to pH, USEPA has previously approved an effluent pH range of 6.0 to 8.0 S.U. That range has been in place since 2012. HSC requests that the RSC-specific table be modified to include the previously approved effluent pH range of 6.0 to 8.0 S.U. rather than 6.5 to 8.0 S.U.

Response 9

EPA notes that NHDES requires a pH study to be conducted each permit reissuance to demonstrate that the expanded pH range will comply with water quality standards based on all updated environmental conditions. As noted on page 20 of the Fact Sheet, "The pH range may be modified if the Permittee satisfies conditions set forth in the General Permit which ensures that an expanded range (no wider than 6.0 to 9.0 S.U.) would not cause or contribute to an excursion of water quality standards. Upon notification of an approval by NHDES, EPA will review and, if acceptable, will submit written notice to the

Permittee of the permit change. The modified pH range will not be in effect until the Permittee receives written notice from EPA.”

EPA also notes that NHDES does not allow pH studies for facilities that discharge to receiving waters that are impaired for pH.

Comment 10

HSC also requests that the requirement to perform a pollutant scan of the receiving waters is improper. It is the responsibility of the Federal and State government to monitor the health of the receiving waters and not the individual dischargers.

Response 10

EPA has broad authority under the CWA and NPDES regulations to prescribe the collection of data and reporting requirements in NPDES Permits. *See* CWA § 308(a)(A), 33 U.S.C. § 1318(a)(A) (specifying that permittees must provide records, reports, and other information EPA reasonably requires); CWA § 402(a)(2), 33 U.S.C. § 1342(a)(2) (requiring permittees to provide data and other information EPA deems appropriate); 40 CFR § 122.41(h) (permittees shall furnish “any information” needed to determine permit compliance); 40 CFR § 122.44(i) (permittees must supply monitoring data and other measurements as appropriate); *see also, e.g., In re City of Moscow*, 10 E.A.D. 135, 170-71 (EAB 2001) (holding that EPA has “broad authority” to impose information-gathering requirements on permittees); *In re Town of Ashland Wastewater Treatment Facility*, 9 E.A.D. 661, 671-72 (EAB 2001) (holding that CWA confers “broad authority” on permit issuers to require monitoring and information from permittees); *In re Avon Custom Mixing Services, Inc.*, 10 E.A.D. 700, 708 (EAB 2002) (“The Board has emphasized that monitoring data play a crucial role in fulfilling the objectives of the CWA and its implementing regulations.”); *Id.* at 709 (“where the monitoring relates to maintaining State water quality standards... nothing in the CWA or the implementing regulations constrain the Region’s authority to include monitoring provisions.”).

Specifically, as noted in the Fact Sheet at 38-39, EPA finds that the annual chemical monitoring of both the effluent and receiving water will ensure sufficient data are available to support future permitting decisions with respect to these pollutants.

C. Comments from Osprey Owl Environmental, LLC, on behalf of the Town of Hooksett, on January 20, 2025.

Comment 11

PFAS and AOF Requirements

In Section II General Permit Requirements there are 25 associated footnotes. Footnote 2. reads, “In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except

WET). The tests for PFAS and adsorbable organic fluorine have not, at the time of the issuance of the draft permit, completed the promulgation process. In the rule (URL; [View Rule](#))¹, there is no Final Action on the CWA Methods Update Rule for the Analysis of Contaminants in Effluent regarding PFAS and a method-defined parameter for adsorbable organic fluorine. As stated, 'Final Action' is 'To Be Determined.' Until promulgation is final, these parameters should not be included in this footnote reference. In December of 2024, the EPA proposed the following: Method 1633A was proposed for approval at 40 CFR Part **136.3** in December 2024 (docket number EPA-HQ-OW-2024-0328)². However, Method 1633A is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking. However, Method 1633A is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking. The EPA recommends it now for use in individual permits."³

In the above docket referenced Fact Sheet the EPA states, "Once final, the updates in this proposed rule will have a positive impact on the regulated community by improving the consistency of how regulated parameters are analyzed by requiring fully validated methods that have well documented accuracy and precision."

Performing these expensive tests now would not meet the criteria for valid testing as these methods are still going through review for accuracy and precision criteria. As this step in the approval process has yet to be completed, the request for PFAS and AOF sampling and analysis does not comport with the conditions of Footnote 2. These requirements should be removed from the permit, or the permit delayed until such time the methods are approved and included in 40 CFR Part 136.

Footnotes 14 and 15 would be affected by the above comment. EPA also states that "Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633." Note the approval that is being sought by the EPA is 1633A. The language is also similar in footnote 15, "Until there is an analytical method approved in 40 CFR Part 136 for Adsorbable Organic Fluorine, monitoring shall be conducted using Method 1621." Adsorbable Organic Fluorine is a speculative test for finding sources of PFAS. There are noted problems with the results and interferences and several non-PFAS compounds can also be measured in the 1621 analysis providing higher non-PFAS concentrations (see section 4.0 of this EPA link [Method 1621 Determination of Adsorbable Organic Fluorine \(AOF\) in Aqueous Matrices by Combustion Ion Chromatography \(CIC\)](#)).⁴

The EPA further states the following, "The EPA's Office of Water has published Method 1621, "Determination of Adsorbable Organic Fluorine (AOF) in Aqueous Matrices by Combustion Ion Chromatography (CIC)," a method to measure the aggregate concentration of organofluorines (molecules with a carbon-fluorine bond) in wastewater. The most common sources of organofluorines are PFAS and non-PFAS fluorinated compounds such as pesticides and pharmaceuticals.

AOF is a method-defined parameter, meaning that the results of the measurement are dependent on the manner in which the measurement is made. The method does not

quantify all of the organofluorine it captures with the same accuracy and has some known interferences that are discussed in the first section of the method (see Method 1621 link above). The method tells the user that organofluorines are present but cannot identify which specific organofluorines are present. The strength of the method is that it can broadly screen for thousands of known PFAS compounds at the **part per billion level** in aqueous (water) samples.

The Office of Water led a multi-laboratory validation study of Method 1621. The Office of Water used the results of the multi-laboratory validation study to finalize the method and develop formal performance criteria. The Office of Water encourages interested parties to review and use the method, with the understanding that it may undergo revision during a rulemaking process. Method 1621 is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking. [CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances \(PFAS\) | US EPA](#)⁵

Note the method measures in the microgram per liter range (ug/l) and the request by the EPA in footnote 15 is for measurement in nanograms per liter (ng/l). This test is not compatible with the EPA's request to measure down to the parts per trillion.

¹ [View Rule](#)

² [*Proposed Rule: Clean Water Act Methods Update Rule 22 for the Analysis of Pollutants in Effluent](#)

³ CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances (PFAS) | US EPA CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances (PFAS) | US EPA CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances (PFAS) | US EPA CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances (PFAS) | US EPA

⁴ [Method 1621 Determination of Adsorbable Organic Fluorine \(AOF\) in Aqueous Matrices by Combustion Ion Chromatography \(CIC\)](#)

⁵ [CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances \(PFAS\) | US EPA](#)

Response 11

CWA §§ 301, 304(h), 307, and 501(a) authorize EPA to promulgate guidelines establishing test procedures for the analysis of pollutants. EPA has promulgated such guidelines at 40 C.F.R. Part 136. EPA has also promulgated a regulation specifying that: “In the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR part 136..., monitoring shall be conducted according to a test procedure specified in the permit....”. 40 C.F.R. § 122.44(i)(v)(B). *See also* 40 C.F.R. § 122.21(e)(3)(ii) (in an application for discharge, “[if] no analytical method... has been approved under 40 CFR part 136... the applicant may use any suitable method....”). Consistent with these regulations, the permit requires the use of Methods 1621 and 1633 because there are not any relevant methods in Part 136. EPA also notes that Methods 1633 and 1621 are both final methods and already went through a rigorous multi-lab validation process of development, including multiple rounds of review and comment, and have well documented accuracy and precision.

Regarding footnotes 2, 14 and 15, EPA recognizes that 40 CFR Part 136 does not include any methods for PFAS or AOF so footnote 2 does not apply until these methods are promulgated in Part 136. Therefore, EPA has specified in footnotes 14 and 15 that the

Permittee must use Methods 1633 and 1621, respectively. Based on this comment, EPA agrees that the most recent revision of Method 1633 is referred to as Method 1633A (which addresses minor editorial issues and clarifies several technical concerns). Therefore, EPA has updated the Final General Permit to require Method 1633A until a method is approved in Part 136.

Regarding Method 1621, EPA recognizes that this method is a screening method for wastewater. As noted on page 44 of the Fact Sheet, “Given the future regulatory uncertainty and that this AOF monitoring will screen for a broader range of organofluorines, such as PFAS and other emerging contaminants, EPA considers it appropriate to monitoring for AOF as well as PFAS to ensure the discharge is fully characterized with respect to these pollutants in the next permit reissuance.” Therefore, this monitoring requirement will remain in the Final General Permit. However, EPA agrees that Method 1621 specifies units of µg/L, so EPA has updated the Final General Permit to include these units rather than ng/L.

Comment 12

The current EPA’s position nationally was only to have wastewater treatment plants 10 MGD or larger to begin testing for PFAS and Adsorbable Organic Fluorine. EPA has a heavily populated website on the ‘POTW Influent PFAS Study’ ([POTW Influent PFAS Study | US EPA](#)). There was an initial Register notice posted on March 26, 2024, with comments to be received by May 28, 2024 ([Federal Register :: Proposed Information Collection Request; Comment Request; POTW Influent PFAS Study Data Collection](#)). In this notice, questionnaires were to be sent to 400 of the largest WWTPs out of the 12,000 (2.7% of the total WWTPs) in the US. Mandatory responses were required and subsets of 200 – 300 plants would be asked to conduct specific sampling in two phases. The Phase One expectation cited, “Phase 1 will require each selected POTW to collect and analyze one-time grab samples of industrial user effluent, domestic wastewater influent, POTW influent, and POTW effluent for forty specific PFAS and adsorbable organic fluorine (AOF). For each POTW selected, the EPA intends to specify no more than ten industrial users for which the POTW must collect and analyze effluent samples. The total number of industrial users sampled as part of the sampling program is not expected to exceed 2,000 facilities. Phase 2 will require selected POTWs to collect and analyze one-time grab samples of sewage sludge for forty specific PFAS and ancillary parameters.” At 200 subset plants with 2,000 industrial facilities equates to 2,200 tests. If it is 300 facilities it is 2,300 tests. In the Phase I Study the EPA calls for a one-time grab of the industrial user’s effluent (2,000 tests) and a one-time grab of the plant’s influent and effluent (400 to 600) tests. At most there will be 2,600 tests run in phase I. EPA estimates that Phase I will get underway in 2025. The Office of Management and Budget did a cost analysis for the above study.⁶ The treatment plants would need to dedicate 25,640 hours for 5.5 million dollars. That is only administrative costs and sampling field work. That amounts to \$2,115.38 for each of the 2,600 tests run in phase 1. The current cost for one PFAS sample is approximately \$500.00. The cost for AOF is approximately \$440.00. The total cost per test is \$3,055.38. At 22 required tests annually (12 for the plant, inf, eff, sludge, and anticipate 10 industries) for each MGP the cost to each MGP WWTP would be \$67,218.36 per year.

The EPA further outlines in the comments that the participants will be divided into four categories. *“Phase I sampling will be staggered in order to distribute demand for environmental laboratories completing sample analysis. The EPA will divide the POTWs selected for wastewater sampling into four groups that contain 50-75 POTWs located across the nation. Groups will sample sequentially (i.e., Group 1 will sample and submit results to the EPA, then Group 2 will sample and submit results to the EPA, etc.) over a 16-month period.”* That would be around 700 PFAS/AOF samples per quarter nationwide. The EPA is expecting the 21 medium plants to analyze influent, effluent, and sludge once per quarter along with one sample from potential industries (estimate 10 per facility from the list in Item 4 on page 17 of 28 in the Medium General Permit). That would be 462 PFAS samples from small plants. This is an extreme overreach by the regulatory agency and does not comport with the Register Notice of the Phase I and Phase II PFAS/AOF nationwide study. It will also swamp the analytical laboratories as noted by EPA.

A second Federal Register Notice was issued on October 10, 2024, with comments due by November 12, 2024, ([Federal Register :: Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Publicly Owned Treatment Works \(POTW\) Influent Per- and Polyfluoroalkyl Substances \(PFAS\) Study and National Sewage Sludge Survey \(NSSS\) \(New\)](#)). More specifics were included with this posting including leaving the POTW size at >10 MGD, the EPA was still looking at 400 facilities participating and now the population size of > /= 50,000 service population was added. Also, note that the study was to include only 10 industrial facilities from each of the participating WWTPs. Merrimack has approximately 28,000 residents and certainly, none of the 21 facilities that will participate in this Medium General Permit have a population of 50,000 service customers.

EPA cites this study in the above roadmap expectation in their November 2024 Annual PFAS update release titled, ‘EPA’s PFAS Strategic Roadmap’: *Three Years of Progress*,⁷ *“The EPA is also moving forward with a nationwide study of PFAS influent and sewage sludge at wastewater treatment facilities and is expected to publish updates on its information collection request in the near future before beginning a two-year study effort.* It is obvious this is step one and that the information gathered from the >10 MGD study may set parameters for Medium and Small General Permit WWTPs in a future NPDES issuance.

Hooksett includes the following information from the EPA’s PFAS Sampling Plan for 200 – 300 WWTPs > 10 MGD as this information will be referenced in the comments in the aluminum section.

⁷ [epas-pfas-strategic-roadmap-2024_508.pdf](#)

Sampling⁸

The EPA will use the information and data collected in the questionnaire to select 2,000 industrial users to be sampled by 200 to 300 POTWs. Each POTW selected for sampling will be required to collect the following:

- *10 samples on average from different industrial users (IUs) selected by the EPA*
- *A domestic sample*
- *POTW influent and effluent samples*
- *QC samples*

The EPA will provide a sampling plan with detailed information on what is required of selected POTWs and how to complete the sampling. As part of sampling, POTWs will be responsible for the following:

- *obtaining sampling supplies*
- *contracting labs for analysis*
- *collecting samples specified by the EPA*
- *notifying EPA when samples are submitted for analysis*
- *reviewing and compiling the sample results in the specified format*

In an effort to both improve lab capacity and reduce costs associated with analyzing wastewater samples from 200 to 300 POTWs simultaneously using [EPA Methods 1633 and 1621](#), the EPA will stagger sampling and analysis.

Selected POTWs for sampling and analysis will be broken up into 4 groups, with each group containing a geographical spread of POTWs from across the country. All samples will be grab samples. Samples will be analyzed using EPA Method 1633, which measures 40 PFAS analytes, and EPA Method 1621, which measures adsorbable organic fluorine (AOF).

EPA intends to conduct the study (which has yet to begin as final Phase II comments were recently submitted by the November 12, 2024 deadline and the Annual PFAS Report (indicates the finalization of the study is at least 2 and ½ years out) and the target WWTP parameters are > 10 MGD with a service population of 50,000 or greater. The study only includes large WWTPs with one influent and effluent test and not the quarterly PFAS/AOF requirements as outlined in this draft MGP. The Town of Hooksett respectfully requests that all PFAS and Adsorbable Organic Fluorine sampling and reporting requirements be removed from the final issued MGP590012 NPDES Permit.

⁸ EPA's PFAS Study Design Section on this website - [POTW Influent PFAS Study | US EPA](#)

Response 12

EPA does not consider that the scope of a nationwide study would somehow limit EPA's ability to collect necessary PFAS and AOF data from each Permittee. As noted in Response 6, EPA finds that this monitoring is necessary.

Comment 13

In footnote 24, Hooksett requests that an additional sentence be added. “This requirement is suspended anytime the river is frozen over during the winter months and noted on the annual survey.”

Response 13

EPA agrees and has added a sentence to footnote 24 clarifying that “If the receiving water is frozen over during any visual inspection, the Permittee may simply note this in the annual summary for that month.”

Comment 14

ADAPTATION PLANNING

Section C, 1., Adaptation Planning covers four pages of the draft permit with 12 footnotes. In the draft Medium General Permit, Appendix D, Fact Sheet the EPA outlines the authority given by statute to enforce the Adaptation Planning requirements. In Section C, Legal Authority EPA cites the following;

- a. *“The Adaptation Plan requirements are an iterative update to EPA’s standard O&M permit provisions and intend to address serious and increasingly prevalent threats to Permittees’ compliance with permit’s effluent limitations.*
- b. *Footnote 31: Congress has recently expressly affirmed that natural hazard adaptation measures for POTWs appropriately fall within the scope of the CWA: Congress added section 223 to the CWA via the Infrastructure Investment and Jobs Act, creating a grant program to support, inter alia, “the modification or relocation of an existing publicly owned treatment works, conveyance, or discharge system component that is at risk of being significantly impaired or damaged by a natural hazard[].” Pub. L. 117-58, 135 Stat. 1162 (codified at 33 U.S.C. § 1302a(c)(4))(2021).*
- c. *EPA’s O&M regulations authorize EPA to impose the Adaptation Plan requirement. 40 C.F.R. § 122.41(e) (“Proper operation and maintenance.*
- d. *CWA § 402(a)(2) (“[EPA] shall prescribe conditions for [NPDES] permits to assure compliance with the [applicable CWA] requirements...as he deems appropriate.”); CWA §§ 301(b)(1)(C), 401(a)(1)-(2); see also 40 C.F.R. § 122.4(d) (“No permit may be issued... When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States”); See also 40 C.F.R. § 122.44(d)(1). The provisions are reasonable measures rooted in the permitting requirements to properly operate and maintain all facilities and the duty to take all reasonable steps to minimize or prevent any discharge in violation of the permit. 40 C.F.R. § 122.41(d), (e).*
- e. *45 Fed. Re. 33290, 33303-04 (May 19, 1980). In 1980 and now, the proper operation and maintenance of a facility – including the Adaptation Plan requirements – effectuates the permit limits on all addressed pollutants and protects all applicable water quality standards, as they assure that such limits will be met, even in times of major storms or during flood events.*

Starting with the earliest citation (e) the EPA references a Federal Register document, Vol. 45, No. 98 published on Monday, May 19, 1980. Nowhere in that Register Notice, as the EPA *indicates in (e) does it say prevention of future flooding and include Adaptation Plan requirements. Item 7) on page 33303 outlines what Proper Operation and Maintenance is and references back to the statutes in place at the time §122.11(g) (now §122.7(e)) required the permittee to “maintain in good working order and operate efficiently all facilities and systems of treatment of control which are installed or used by the permittee to achieve compliance with the terms and conditions of the permit.” The second sentence further defined “proper operation and maintenance” as including “effective performance based on designed facility removal, adequate funding, effective management, adequate operator training, staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures.” This requirement is clearly authorized for NPDES permittees by section 402(a)(2) of the CWA which required the Administrator to prescribe permit conditions which will assure compliance with the requirements of CWA section 402(a)(1).*

The examples are clear, flooding and natural disaster prevention were never considered as part of the Proper Operation and Maintenance. Congress had no intentions of wastewater treatment plants requiring the inclusion of adaptation planning as a requirement of the NPDES or the CWA as is clear in the CFR notice of May 1980.

Once again, the intention of Congressional action is clear, “*shall award grants to eligible entities for the purpose of increasing the resiliencies of POTWs*”. It does not say all NPDES permit holders and it refers directly to those plants that are eligible. The designation ‘Eligible Entity’ is used several times through the section ‘Use of Funds.’ The Infrastructure Act indicates that ‘Eligible Entities’ will receive 75% funding and should not exceed 90% for communities under 10,000 population. The Administrator could also grant a waiver to pay 100% of the cost. There is absolutely no Congressional intent to include this requirement in all NPDES permits going forward. The phrase ‘reasonable requirements’ is used in several sections of the law cited by the EPA. Many of the requested actions, deadlines, and self-funding requirements are regulatory overreach that is beyond ‘reasonable requirements.’

On June 28, 2024, The Supreme Court in the case of Loper Bright Enterprises vs. Raimondo and the sister case of Relentless vs. Dep’t of Commerce overturned the longstanding Chevron USA vs. the Natural Resources Defense Council. Regulatory Agencies were given deference with a statute was unclear or ambiguous. In the references the EPA cites in Appendix D, Legal Authority it is clear that operation and maintenance is for the plant and all processes under its control for the effective treatment of wastewater and not to be able to offset the impacts of natural disasters. It is clear the intent of the Infrastructure Act the EPA cites if for certain eligible plants that the Act funds between 75% and 100% of the implementation of the program. It is a program and not an NPDES requirement. The Chevron decision was overturned to prevent this exact type of overreach.

Executive Order 14008 ([Federal Register :: Tackling the Climate Crisis at Home and Abroad](#)) published January 27, 2021, outlines the path the government is to take in the execution of the conditions of the Executive Order. Sec 102(e) is specific regarding the process to include input

from various agencies and domestic stakeholders. In reading through the order there are several references to the Government Agencies coordinating and receiving input from local governments, communities, and stakeholders. There was no input from the MGP WWTPs on all these mandated projects before the receipt of the draft NPDES permit. This comment period is the only opportunity Hooksett has for input on this draft permit. Once the permit is finalized, the Town is mandated to uphold all the conditions and the NPDES Permit becomes law without any further input as required by Executive Order 14008.

Before any Medium General Permittee can go forward, a look back at the historic flooding in NH is required.

There is a document produced by the FEMA in July of 2008⁹ The document reviews the key findings of the 2006 Mother's Day Flood which happened only 11 months after the catastrophic flooding of April 2007. The main causes of each flooding event were different. The May 2006 event was a result of 6" to 14" of rainfall over two days. The April 2007 event had 4" to 8" of rainfall, but this event was exacerbated by rapid snow melt. These two events are compared to floods of 1936, 1938, 1960, 1987, 1991, and 1998. Table 2-7 of the report lists the historic severe flooding events. Listed below are events that happened before the Clean Water Act of 1972 and the historic nationwide building of wastewater treatment plants from the early 1970s through the mid-1980s. The first listed was in December of 1740. Next was October 23, 1785, then March 24-30, 1826, followed by April, 21-24, 1852, then 10 years later flood of April 19-22, 1862 (due strictly to snow melt), then a subsequent flood of October 3-5, 1869 (6" to 12" of rain), a November 3, 1927 flood, March 11-21, 1936 (first due to rain followed by subsequent contribution by both snowmelt and rain), the September 21, 1938 hurricane, the June 1943 flooding in the lower Merrimack, and then again in June of 1944, November 1950, March 27th 1953, August of 1955, October 25, 1959, December 1959, April 1960, April 1969, February of 1972 and finally June of 1972 before the implementation of the Clean Water Act. That's 17 historic flooding events before a spade was put into the ground for the WWTPs funded 95% (75% federal and 20% state with a 5% obligation by the municipality). There were 16 additional flooding events after the June 1972 event and the implementation of the CWA. This demonstrates that severe flooding events are nothing new and very similar to events after the CWA regarding intensity, duration, causality, and destructiveness.

⁹ [Microsoft Word - New Hampshire Flooding Analysis 7-28 for FINAL review BM.doc](#)

With all this historical knowledge and follow-up studies with reports on how to abate the destructiveness of these types of storms, all of the 21 MGP plants were still built in the lowest-lying areas to take advantage of gravity flow for the community being served. The FEMA study states, *"Flood events that occurred in the last century could be more damaging if they occurred today. Development, often in the floodplain, has grown. Development reduces the ability of flood waters to pass unimpeded and increases flow rates. South central and southeastern New Hampshire experienced two very large floods in 2006 and 2007. Depending on location, they ranged from 10-year flood events to over 500-year flood events."*

There was a forewarning of these types of disasters drafted by the Department of the Interior

(595 pages) titled, '**Hurricane Floods of September 1938**'¹⁰ that was published by the USGS in 1940. This was 30 years before the CWA and 94 years before today's mandate for Adaptation Planning. In the General Features of the Storm section it states, *"it appears that the magnitude of the floods may have been determined in part by meteorological conditions not intimately associated with the tropical disturbances."* The narrative goes on to lay out the interplay of climate conditions that point to many causes. The Hurricane was one factor, a low-pressure system over Nebraska, a continental disturbance centered over northern Maine, with a high-pressure over Quebec and a low-pressure area that extended from North Carolina to Central New England. This interplay of meteorological systems held the rainfall in place longer than usual. We've witnessed similar events with the Perfect Storm of October 1991. These types of events, without the hurricanes, happen in New Hampshire, Maine, and Vermont at about the same frequency as the historical string of storms from 1927 through the inception of the CWA in 1972.

¹⁰ [report.pdf](#)

The actions laid out in the 1940 USGS report are what have been ignored post-1938 Hurricane. There is a description of how the grounds' adsorptive capacity was different from the 1938 storm and a previous storm of 1927. The adsorptive capacity was capable of holding anywhere from 1" to 4" of rainfall reducing the destructive capacity of the event (if and when the adsorptive capacity was available). Much of the area from Connecticut to Central Massachusetts exceeded 17" of precipitation over four days. A 4" adsorptive capacity would have reduced the impact to 13" of rain. Table 17 on page 417 illustrates the adsorptive capacity of the 1927 storm, and Table 18 the adsorptive capacity of the 1932 storm. This would be important information to have as part of a real-time controls program similar to CSO real-time controls, to use like SCADA when storms approach and high-flow plans are activated at WWTPs.

Page 36 begins the narrative of the flooding in the Merrimack River Basin. Note the Contoocook River had flooding likely exceeding the 500-year flood levels where dams were breached, bridges destroyed and homes swept away. This fact demonstrates that there will continue to be pockets where the precipitation is heaviest and exceeds Adaptation Planning preparation.

On page 58 an insightful narrative was given, *"Lessons have been learned, and social and economic problems and problems of control and protection have arisen as a result of the disaster. The Lessons must not soon be forgotten, and the problems ought to be studied and analyzed and solutions diligently sought. Steps have already been taken towards these ends, and it seems evident that the extraordinary experiences of this disaster will provide the basis for sound measures of forewarning, control, and protections that will operate to reduce substantially the attendant social and economic crippling should any similar catastrophe strike in the future."*

Several antecedent conditions are laid out in the report. Snowpack and depth, anticipated temperatures and rate of snow melt, possible ice dams, the capacity of the soil to retain rainfall, the extent of vegetative cover, conditions where backwater exacerbated flooding, dams and controls of river volume and velocity, and increasing Curve Numbers (CN) with increasing industrialization and population growth. The most effective flood control is storage. Pages 412 and 413 outline how effective storage is in combating flooding.

Mentioned in the Merrimack River Basin storage narrative are Lake Winnepesaukee, Newfound, Squam, and Winnisquam. As an example, the report says Lake Winnepesaukee has seven billion cubic feet (52 billion gallons of storage) when drawn down 44 inches below full regulation level. A report was issued by the USACAE¹¹ that demonstrates the effectiveness of dam control.

The 1940 USGS outlines the effectiveness of dam control the USACAE report demonstrates the effectiveness of dam control. The percent reduction went from a low of 19% to a high of 64% at five stations that either contributed to the flow in the Merrimack River or the Merrimack River.

Specific river stage information showing the effectiveness of Corps reservoirs is presented below.

Effectiveness of Corps of Engineers Dams						
Location	D.A. (sq. mi.)	Flood Flow (cfs)	Obs. Peak (cfs)	Natural Peak (cfs)	Reduction %	ft
Merrimack River Basin						
Merrimack R @ Concord, NH	2,385	30,200	35,400	66,300	47	7.7
Merrimack R @ Manchester, NH	3,092	46,060	74,700	106,200	30	6.3
Merrimack R @ Lowell, MA	4,635	48,000	105,750	130,950	19	2.3
Piscataquog R @ Goffstown, NH	202	3,460	10,000	14,250	30	1.8
Contoocook R @ River Hill, NH	760	11,700	10,250	28,550	64	6.0
Naugatuck River Basin						
Naugatuck R @ Beacon Falls, CT	259	8,725	7,340	16,745	56	3.8

¹¹ [30 April 2003](#)

Hooksett is in the process of a State-funded study to determine what the 500-year flood level would be around the plant. The initial findings are the main building would need to have a surrounding wall approximately 5 feet high as the 500-year flood level rises to the middle of the windows in the office area.

Clarifiers, chlorine contact tanks, and other tankage would all need floodproof walls at least four feet or higher. There are sewer covers, Bilko hatches, and catch basins on the property. Flood waters and sewer and drain pressures may easily force these covers either open or off. This creates a life-threatening condition for any employee working at the plant during the time of flooding. This happened in Nashua, NH in October 2016¹² where a teenage boy fell into a storm sewer due to a heavy rainfall event. Three to four feet of flood waters over an open manhole can

create a vortex that may pull a victim in who is several feet away from the opening.

Canoes, Kodiak-powered rescue rafts, and smaller bass boats would be needed to transport employees to and from the flooded wastewater plant property. With a raging Merrimack River above 50,000 cfs now covering the property boundaries, it would be easy for the velocity of the floodwaters to draw the watercraft into the current causing occupants to drown.

¹² [Concord Monitor - A Nashua teen dies in a bizarre manner. So, going forward, what does that mean for keeping drainage systems safe?](#)

With the information contained in the 1940 USGS report, it appears the poorest location for wastewater plants was at river levels. This put wastewater plants at ground zero for community flooding. As you can see from the contour map of the Hooksett WWTP location there were many choices to locate the plant on higher ground out of the 500-year flood area. There are several locations today that are 30 or more feet above the present location.

The concern then (likely through the Value Engineering [VE] process) was the cost associated with pumping community wastewater up from the lower occupied elevations to allow the wastewater to flow back to the river via gravity. As the Federal Government and State were paying a lion's share of the cost (95%) the goal was to contribute stretch the furthest to build as many WWTPs as possible. Likely, the recommendations from the USGS 1940 report were not even considered. This is a great example of 'Penny-wise and Pound-foolish'. Now, the Adaptation Plan will likely call for two or three significantly large pumps to pump the flood-contaminated wastewater to the Merrimack River that could have been incorporated into an initial high-ground WWTP location.

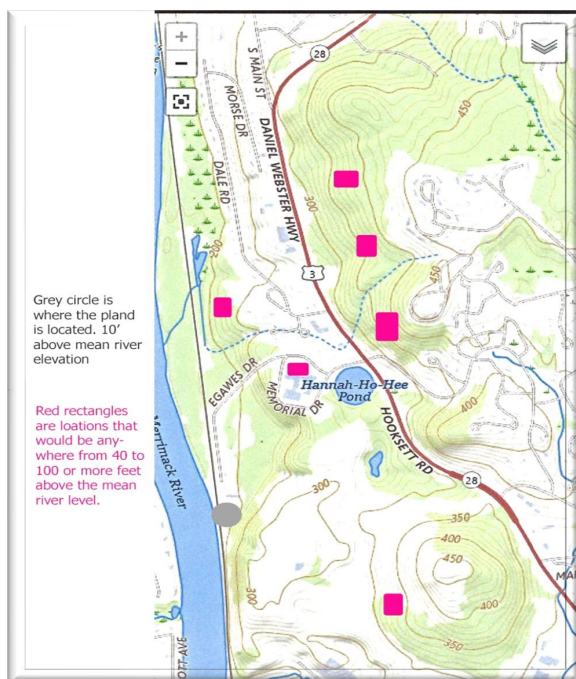


Figure 2 WWTP locations that could survive the 500-year flood.

Section 211(d) of Executive Order 14008¹³ order is direct for how the implementation of Executive Order 14008 proceeds. *“To assist agencies and State, local, and Tribal territorial governments communities, and territorial governments communities and businesses in preparing for and adapting to the impacts of climate change..., shall provide to the Task Force a report on the ways to expand and improve climate forecast capabilities and information products for the public. Shall assess and provide to the Task Force a report on the potential development of a consolidated Federal geographic mapping service that will assist Federal, State, local, and Tribal governments in climate planning and resilience activities.”* The EPA points out in their Draft Strategic Plan incorporating the directives of the Executive Orders that the department still needs to improve the model of climate change impacts including how risks and economic impacts can be reduced under mitigation and adaption scenarios and how those impacts will disproportionately affect overburdened and underserved communities. None of this EO14008 directive is outlined in Section C or the pages of the Fact Sheet of this NPDES Draft Permit. The EPA is expecting the Town of Hooksett to master these aspects of adaption scenarios when the EPA admits there is still a need for improvement in their understanding of climate change impacts.

¹³ [2021-02177.pdf](#)

Hooksett believes the use of the CREAT model to determine the vulnerable areas is a good starting point. This modeling has essentially been completed by the NHDES and the Town is awaiting the final report on the findings. The USGS and State should begin to coordinate locations for ground moisture monitors in the NH counties and historical flood zone land masses to determine adsorptive capacity. The dam stage operating plans should be included in a model that couples snowpack, ground moisture, anticipated rainfall, rainfall intensity, rainfall duration, and localized area anomalies anticipated from the storm track. CN numbers should be updated and modeled to illustrate the impacts of continued community growth on soil adsorption and runoff intensity. This in itself will inform communities of the additional flooding impacts when future CN curves steadily increase in flood-prone areas. This could all be rolled into a real-time climate impact model for severe storms and calibrated over a couple of years. This would satisfy footnote 10, *“They may include but are not limited to: building or modifying infrastructure, utilization of models (including but not limited to: flood, sea-level rise and storm surge, sewer/collection system, system performance), monitoring and inspecting (including but not limited to: flood control, infrastructure, treatment) and repair/retrofit.”*

Then each community with a wastewater plant should be trained in the interpretation of the real-time model and how it impacts their high-flow management plans, neighborhood evacuation plans, and future growth plans. This would take 10 or more years of federal and state coordination but would be the best tool developable for an overall state Adaptation Plan rather than each plant winging it to the tune of millions of dollars of upgrades that will likely fail in the largest of storms.

Section 402 of the Clean Water Act (b)(1)(B) requires the issuance of permits that *“are for fixed terms not exceeding five years;”* This requirement is outlined in the State designated programs also as indicated in Section 402 (a)(1)(B)(3). *“EPA shall be subject to the same terms, conditions, and requirements as apply to a State permit program and permits issued thereunder under subsection (b) of this section.”* The administrative attempt in this draft permit is to set conditions that go well beyond the five-year permit period. EPA acknowledges this get-around proposal in Footnote 7, “These shall include both short-term (10-25 years forward-looking) and long-term (25-70 years forward-looking) relative to the baseline conditions and must include projections of flooding due to major storm and flood events using federal, state and local data, where available; b) Freeboard Value and 500-year floodplain Approach:”. This is two, five, and 16 permit cycles of mandated tasks placed in this new, MGP five-year period.

Due to the above reasons, Hooksett respectfully requests that footnotes 7 through 12 be removed and footnote 9 becomes footnote 7 (Hooksett agrees that the CREAT model will shed some light on how vulnerable the plant is) while entirely removing Components Two and Three. Also, Section Three, Annual Reporting, G., Adaption Planning Progress Reporting should be modified to include only reporting on the CREAT modeling and the findings from that model.

Response 14

See Response 2.

Comment 15

Section E, Industrial Users

The industrial and commercial entities mentioned in Section E. 4, for annual PFAS sampling should be removed from this MGP for the reasons indicated above. Hooksett does not meet any of the criteria of the EPA’s > 10 MGD Phase I PFAS Study.

Response 15

See Response 12.

Comment 16

Section H, Special Conditions

In Section 5. Toxicity Violation Procedures, a. Accelerated Testing Procedures there is a requirement for a WET retest at 14 days and at 28 days of a WET test failure, death of fish or shellfish in the vicinity of the outfall, or an oily sheen noted on the surface of the water in the vicinity of the outfall.

The WET test failure may well indicate toxicity in the influent of the wastewater treatment plant. Dead fish in the vicinity could very well be from upstream death or fishing activities in the area. The presumption that the death is being caused by the WWTP effluent is a reach. If this were the case, an operator could inspect the mixed liquor that has settled in the secondary clarifiers by taking a sludge judge core and looking at a drop of the settled MLSS under a microscope. If there is sufficient microbiological life there is no indication that the plant process is toxic. This with a test for residual chlorine in the effluent and the dissolved oxygen going out in the effluent would

be all that is needed to determine if it was any type of causal plant toxicity that killed the fish. These three measures would be more than logical to prove effluent toxicity without the need to spend \$3,000 on another WET test. Hooksett requests that the second bullet be stricken from the final permit.

The third bullet calls for a toxicity test if there is an oily sheen on the surface of the water in the vicinity of the outfall. Again, a bucket dropped into the chlorine contact chamber effluent and an inspection of the overflow weirs from the chlorine contact tank and the secondary clarifier launders would easily determine if the cause of the oily sheen is coming from the WWTP. Again, this is a waste of \$3,000 if the WWTP investigation demonstrates no oils from the clarifier or contact chamber launders or in the outfall effluent. For this reason, Hooksett requests that the third bullet be stricken from the final permit.

Response 16

Regarding the second bullet under Part II.H.5.a, EPA acknowledges that a sudden and significant death of large numbers of fish and/or shellfish in the vicinity of the discharge may be caused by something other than the discharge. Therefore, EPA has added language to the Final General Permit to clarify that the source “may have been due to the discharge” indicating that if the Permittee is able to identify that there is another source more likely than the discharge, then this requirement is not triggered. However, EPA does not agree that looking at sludge cores or settled MLSS under a microscope is an adequate replacement for a WET re-test.

Regarding the third bullet under Part II.H.5.a, EPA agrees that the presence of an oily sheen in the receiving water is not sufficient justification for a WET re-test. Rather, EPA considers that an oil & grease test is more appropriate. Therefore, EPA has updated the Final General Permit to remove the third bullet under Part II.H.5.a, and added a requirement under footnote 24 of Part II.A.1 to immediately test for oil & grease if an oily sheen is observed.

Comment 17

ALUMINUM

Under schedules of compliance, the MGP has a compliance schedule for aluminum. This is required by the 118 ug/l aluminum limit in the effluent monitoring table and also referenced in footnote 12.

The WWTP was using PAC during the years leading up to 2019. PAC was temporarily discontinued to determine the extent of secondary settling losses and the results were negligible. Hooksett ceased the use of PAC with the last high effluent aluminum concentration due to PAC (noted in March of 2019 at 960 ug/l) which explains the high effluent aluminum in the effluent before suspension of the aluminum-based coagulant.

As the WWTP moved away from the use of PAC, the data from June 2019 through December 2022 would reflect this fact. The highest effluent aluminum concentration during that time was 400 ug/l with the lowest being 0 ug/l.

From January of 2023 through July of 2023, the plant had four monthly e-coli violations, three violations of which were <85% removal efficiency, monthly, weekly, and max mg/l violations for BOD and TSS which was all due to significant construction going on at the WWTP. An explanation as to the cause of these violations was included in each DMR ([see Appendix B](#)) and is a result of actions that needed to be taken to complete the ongoing construction.

Clean Sampling was performed upstream of the plant's effluent discharge over the months of June through October 2024. At the same time these upstream samples were being collected, clean samples upstream of the Manchester WWTP were also being collected to provide a downstream concentration for total aluminum (samples collected behind the Fischer Cat Stadium). Samples were also being collected upstream of the Derry outfall on Temple Street in Litchfield. The results of the upstream ambient analytical results and the plant's effluent results for aluminum are below.

TABLE 1

Data ug/l		Upstream River Samples			WWTP Effluent	
DATE	River Flow	Tot Al	Al Dup	RPD	Eff Al	Eff Avg Mth
6/25/2024	5,100	45	50	-2.6%	35	
6/27/2024	3,200	49	51	-1.0%	34	34.5
7/2/2024	3,080	61	61	0.0%	33	
7/18/2024	1,570	27	25	1.9%	38	35.5
8/21/2024	2,400	86	86	0.0%	28	
8/23/2024	1,930	63	69	-2.3%	92	60
9/6/2024	1,060	40	40	0.0%	83	
9/11/2024	1,210	30	33	-2.4%	25	54
10/4/2024	682	74	75	-0.3%	24	
10/10/2024	935	32	30	1.6%	32	28
Median Value of Data		47	51	-0.2%	34	
<u>95th Percentile of Eff</u>					<u>89.3</u>	<u>57.55</u>

Note, when comparing the effluent aluminum to the ambient upstream river, the samples are mostly lower in the effluent than in the river. Clean sampling for effluent discharge can be accomplished in four easy steps. These include a clean bag insert in the composite carboy to avoid the addition of sloughings and organic matter that clings to the side of the carboy from previous composite samples, a new or ultra-clean sampling hose to take samples from the effluent channel, clean thick pumping tubing to pump the sample into the bagged carboy and a metal-free strainer to avoid particulate pieces of stainless steel being drawn up into the sampling tube from the strainer rubbing against the concrete tankage.



Figure 3 Bag insert



Figure 4 Dirty vs Clean hose



Figure 5 Clean pump tubing

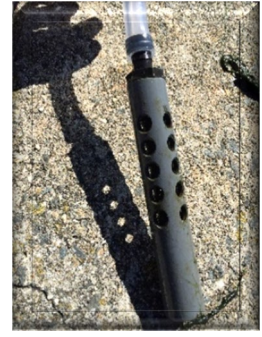


Figure 6 Non-metallic strainer

Below are three columns with various datasets. The first is using only plant effluent data minus the PAC use value of 980 ug/l (as this type of effluent sample will no longer be discharged into the effluent. The 95th percentile of all that data is 402 ug/l for total aluminum. The next data set is the first column data with the clean sample data from clean sampling with a 95th percentile of 395 ug/l. The final column is the second column with the PAC value added and the two very high aluminum effluent results during the plant construction period. The 95th percentile is 2,272 ug/l.

TABLE 2

Without Clean Data & PAC use and Construction Disturbances		With Clean Data		With PAC, Construction, and Clean Data	
Jun-19	220	Jun-19	220		
Sep-19	140	Sep-19	140	Mar-19	960
Dec-19	270	Dec-19	270	Mar-23	2600
Mar-20	110	Mar-20	110	Jun-23	5000
Jun-20	210	Jun-20	210	Jun-19	220
Sep-20	180	Sep-20	180	Sep-19	140
Dec-20	110	Dec-20	110	Dec-19	270
		Mar-21	240	Mar-20	110
Mar-21	240	Jun-21	170	Jun-20	210
Jun-21	170	Sep-21	0	Sep-20	180
Sep-21	0	Dec-21	0	Dec-20	110
Dec-21	0	Mar-22	300	Mar-21	240
Mar-22	300	Jun-22	180	Jun-21	170
Jun-22	180	Sep-22	400	Sep-21	0
Sep-22	400	Dec-22	93	Dec-21	0
Dec-22	93	Sep-23	84	Mar-22	300
Sep-23	84	Dec-23	410	Jun-22	180
Dec-23	410	Jun-24	34.5	Sep-22	400
Median	180	Jul-24	35.5	Dec-22	93
95th % tile	402	Aug-24	60	Sep-23	84
		Sep-24	54	Dec-23	410
		Oct-24	28	Jun-24	34.5

	95th % tile	395	Jul-24	35.5
			Aug-24	60
			Sep-24	54
			Oct-24	
			9	
			5th percentile	2,272

The NHDES proposed a change to the aluminum criteria in the State's adopted CALM. The initial proposal was to use regression curves from DOC, pH, Hardness, and river/stream discharge cfs at the time of sampling. Comments were made and the NHDES again asked for comments removing the DOC, pH, and Hardness values from the calculation while only keeping the river/stream discharge values. The premise was to collect 24 samples, being measured for DOC, pH, and Hardness and running these values through the aluminum calculator. The below table has the clean sample data from the summer sampling event for Hooksett as run through the aluminum calculator.

The NHDES has proposed a 50th percentile of the flow and the calculated CCC in instances where there is a significant relationship ($p < 0.05$) with the data sets. A 10th percentile if there is not a significant relationship and a 5th percentile if there are endangered species around the discharge outfall. Look at the Medium Draft Permits Section 5.2. Endangered Species Act. It states that there are two species in the vicinity of all 21 plants' outfalls. The long-eared bat and the tricolored bat. Therefore, any permits issued under the MGP would be at the 5th percentile under the new aluminum calculator scenario considered for use by the NHDES.

TABLE 3

	<i>Date</i>	<i>DOC</i>	<i>Hardness</i>	<i>pH</i>		<i>FAV</i>	<i>CMC</i>	<i>CCC</i>
45	6/25/2024	3.2	14	6.8	#	1,375	690	320
49	6/27/2024	3.4	14	6.8	#	1,418	710	330
61	7/2/2024	4.6	13	7.27	#	2,761	1,400	570
27	7/18/2024	3.3	15	7.01	#	1,860	930	410
86	8/21/2024	5.3	13	6.58	#	1,291	650	320
63	8/23/2024	5.7	14	6.67	#	1,568	780	360
40	9/6/2024	3.7	15	6.66	#	1,267	630	300
30	9/11/2024	3.3	16	6	#	399	200	130
74	10/4/2024	2.7	19	6.8	#	1,423	710	320
31	10/11/2024	3.8	17	6.28	#	771	390	220

The **50th percentile** from the data above is **320 ug/l**. The **10th percentile** is **211 ug/l**. The **5th percentile** is **170.5 ug/l** and the likely concentration established for Hooksett under the present CALM proposal.

The EPA states the downstream aluminum is high enough to give both the Manchester and Allenstown WWTPs a limit of 118 ug/l. It is stated that this value is the established concentration in the Manchester permit and therefore would apply to Hooksett as it is for Allenstown, as Hooksett lies between an upstream and downstream plant with the same effluent aluminum limitations.

The summer 'Clean Sampling' program yielded the following results for Manchester, Hooksett, and Derry (two plants below the Hooksett outfall). These are included for comparison and to demonstrate Merrimack River background consistency along that stretch of the river.

TABLE 4 – Comparison of Hooksett, Manchester, and Derry Aluminum 'Clean Samples'

Date	Flow cfs	Hooksett	Manchester	Derry
6/25/2024	5,070	45	47	51
6/27/2024	2,670	49	56	43
7/2/2024	2,720	61	93	51
7/18/2024	1,590	27	26	24
8/21/2024	2,450	86	93	84
8/23/2024	2,780	63	71	70
9/6/2024	1,530	40	46	37
9/11/2024	1,150	30	26	27
10/4/2024	620	74	22	25
10/11/2024	970	32	24	28
Median		47	46.5	40
Lowest ug/l				
Middle ug/l				
Highest ug/l				

The cells are shaded lowest concentration (peach), middle concentration (straw), and highest concentration (powder blue) to determine trends. Hooksett samples were taken immediately upstream from their outfall (about 11 miles upstream from Manchester's 001 outfall). Manchester samples were taken at the Fisher Cat Stadium boat ramp (about 1.5 miles upstream of Manchester's 001 outfall), and the Derry samples were taken from a small beach area (about four miles downstream of Manchester's 001 outfall) about ½ mile below the Roger Wizorek bridge (new airport cutoff bridge). This location is approximately 1 mile upstream of their Temple Street discharge.

The samples were all very close to each other except for the 7/2 sample (Manchester was a 1/3 higher than the other two samples and the 10/4 sample where Hooksett was three times higher than the other two samples. Employees were being trained during most of the sampling events and that could explain the variations. However, when the measurements are below 100 ug/l almost anything can contribute to additional contamination of the sample collected. The duplicates indicated that the samples were all collected uniformly.

The highest flow was on 6/25 at 5,070 cfs and the lowest flow was on 10/4 at 620 cfs. As all flows were below 7,000 cfs it is not believed that scouring of the river bed contributed to any of the measured contamination in all samples.

Table 5 – Manchester NH Upstream Data from Clean Sampling (duplicates and RPD)

DATE	River Flow	Tot Al	Al Dup	RPD
6/25/2024	5,070	47	49	-1%
6/27/2024	2,670	56	55	0.5%
7/2/2024	2,720	93	88	1%
7/18/2024	1,590	26	27	-1%
8/21/2024	2,450	93	90	1%
8/23/2024	2,780	71	73	-1%
9/6/2024	1,530	46	43	2%
9/11/2024	1,150	26	26	0%
10/4/2024	620	22	23	-1%
10/11/2024	970	24	23	1%
	Median Conc	47	46	0.23%

The downstream median concentration from the Hooksett discharge is 47 ug/l. With the downstream concentration being established with the Manchester summer sampling, Hooksett believes the WWTPs 95th effluent percentile concentration should be 395 ug/l as stated in Table 2, Column 2. This would be minus the aluminum results when PAC was being used and minus the data for effluent aluminum concentration during impacts from site construction.

According to Appendix B, Dilution Factor, Fact Sheet of the draft MGP, the available dilution in the Merrimack River is 648.76 cfs (419.91 mgd). The WWTP design flow is 2.2 mgd. The formula for calculating reasonable potential is $(Cs \times Qs) + (Ce \times Qe) / Qd$.

395 ug/l	Ce = Effluent Concentration 95th Percentile
2.2	Qe = Avg Design Q for Chronic: Peak Q Acute
47 ug/l*	Cs = Median Concentration in Merrimack River upstream
419.91	Qs = 7Q10 Stream flow Merrimack River
47 ug/l	Cd = downstream concentration
422.	Qd = Downstream flow (Qs + Qe)

- The first column from Table 3 is the actual upstream measured aluminum.

$(47 \times 419.91) + (395 \times 2.2) / 422.11 = 19,735.77 + 869 / 422.11 = 20,504.77 / 422.11 = \mathbf{48.81}$
ug/l is the final downstream concentration with Hooksett's effluent discharge of 395 ug/l.

$(47 \times 419.91) + (2,272 \times 2.2) / 422.11 = 19,735.77 + 5,005 / 422.11 = 24,740.77 / 422.11 = \underline{\underline{58.61}}$ **ug/l** being the final downstream concentration with Hooksett's 95th percentile of 2,272 (worse case effluent discharge ignoring the suspension of PAC use and the high effluent aluminum during plant construction. The high number is almost 20 ug/l below the chronic value of 78.3 ug/l WQ limitation.

The median downstream concentration for average monthly Manchester aluminum concentration is 1.06 ug/l lower than the calculated median value from a greater than five-year Hooksett data set. The ten-day Manchester summer data set demonstrates how closely it reflects an almost six-year Hooksett dataset and verifies the Merrimack River's background aluminum consistency.

TABLE 6 – Manchester NH Upstream Data from Clean Sampling (duplicates and RPD)

DATE	River Flow	Tot Al	Al Dup	RPD	Eff Al	Avg Mth
6/25/2024	5,100	45	50	-2.6%	35	
6/27/2024	3,200	49	51	-1.0%	34	34.5
7/2/2024	3,080	61	61	0.0%	33	
7/18/2024	1,570	27	25	1.9%	38	35.5
8/21/2024	2,400	86	86	0.0%	28	
8/23/2024	1,930	63	69	-2.3%	92	60
9/6/2024	1,060	40	40	0.0%	83	
9/11/2024	1,210	30	33	-2.4%	25	54
10/4/2024	682	74	75	-0.3%	24	
10/10/2024	935	32	30	1.6%	32	28
Median Value of Dataset		47	51	-0.2%		
Median Value of Dataset		47	51	-0.2%	34	
95th Percentile of Eff					89.3	<u>57.55</u>

Looking at the twice-a-month sample data the median is 89.3 ug/l. Looking at the median of the monthly average data the median is 57.55 ug/l. These represent the ambient aluminum in the Merrimack River and the Hooksett effluent - some of the flows at the time of sampling were close to the 7Q10 of 649 cfs. This is more representative of Merrimack River aluminum concentration than the previous non-clean sample collection.

For the above-stated reasoning, the Town of Hooksett respectfully requests that the aluminum limit of 118 ug/l be removed from the final permit.

Response 17

EPA appreciates the additional data provided in this comment. Although the comment does not provide information necessary to invalidate previous ambient data, it does

provide additional ambient data from 2024. Including this more recent ambient data (along with the previous data) resulted in an updated ambient median value of 100 µg/L. All else being equal, the resulting downstream concentration is 105 µg/L, which is slightly below 106 µg/L (*i.e.*, the criterion of 118 µg/L based on the acid soluble fraction times 0.9 to reserve 10% assimilative capacity). Therefore, the updated calculation does not show reasonable potential for aluminum and the limit has been removed from the Final Permit.

D. Comments from Underwood Engineers on behalf of the Town of Hooksett, on February 3, 2025.

Comment 18

pH. Section II.A.1 table and Footnote 8, Section II.H.1, and Section I1.K.5. The HSC has previously gone through the required procedures to justify an alternate effluent pH range which was vetted and approved by EPA. The plant's current effluent pH range of 6.0 to 8.0 S.U. has been in place since at least December of 2012. We respectfully request that the HSC site specific table be modified to include an effluent pH range of 6.0 to 8.0 S.U. rather than 6.5 to 8.0 S.U.

Response 18

See Response 9.

Comment 19

Total Recoverable Aluminum (TRA). Section I1.A.1 table and Footnote 12, and Section I1.H.4. Underwood maintains that it is inappropriate to utilize non-permit related plant operations data or WET testing data to establish effluent quality or background levels of pollutants in receiving waters when setting permit limits. Only samples taken utilizing clean sampling techniques should be utilized for permit setting. To ensure that quality clean sampling data has been collected for the HSC, they engaged a private consultant, OspreyOwl Environmental, LLC., to sample their effluent and receiving stream for TRA. Based on the quality data that OspreyOwl has collected, there is no reasonable potential for the HSC effluent to cause or contribute to an exceedance above the in-stream water quality level for aluminum in the Merrimack River. Please refer to this data and the RPC analysis by OspreyOwl submitted under separate cover and attached to the HSC's overall comment package. Underwood requests that the TRA limit contained in HSC's site-specific effluent limits table be removed.

Response 19

EPA disagrees that it is inappropriate to use WET testing data in setting permit limits and notes that EPA must use the best available data. EPA encourages facilities to ensure that WET testing samples are collected without contamination. In any case, see Response 17 regarding the removal of the aluminum limit.

Comment 20

Total Phosphorous (TP). Section II.A.1 table and Footnote 23, and Section II.H.2. First note that the footnote number on HSC's site-specific effluent limits table is incorrect and reads footnote 22 and should instead read footnote 23. Underwood maintains that it is inappropriate to utilize non-permit related plant operations data or WET testing data to establish effluent quality or background levels of pollutants in receiving waters when setting monitoring/reporting requirements. Only samples taken utilizing clean sampling techniques should be utilized for permit writing. To ensure that quality clean sampling data has been collected for the HSC, they engaged a private consultant, OspreyOwl Environmental, LLC., to sample their effluent and receiving stream for TP. Based on the quality data that OspreyOwl has collected, there is no reasonable potential for the HSC effluent to cause or contribute to an exceedance above the in-stream water quality level for phosphorous in the Merrimack River. Please refer to this data and the RPC analysis by OspreyOwl submitted under separate cover and attached to the HSC's overall comment package. Underwood requests that the TP reporting contained in HSC's site-specific effluent limits table be removed. We also request that the requirement to sample ambient TP in the Merrimack River be removed for the same reason as well as the fact that this is an unfunded mandate. It is the responsibility of the Federal and State government to monitor the health of the receiving waters, not the individual dischargers.

Response 20

EPA disagrees that it is inappropriate to use WET testing data (or any other effluent or ambient data collected under the permit) in setting permit limits and notes that EPA must use the best available data. EPA encourages facilities to ensure that ambient phosphorus samples (or any other effluent or ambient data collected under the permit) are collected without contamination.

EPA agrees that there was no reasonable potential for this discharge to exceed water quality standards with respect to phosphorus. However, EPA had limited ambient data in its analysis and is requiring a more robust data collection effort in this permit to ensure the discharge continues to comply with water quality standards.

EPA disagrees that the ambient phosphorus data is an unfunded mandate. EPA interprets the reference to "unfunded mandate" as a reference to the requirements of the Unfunded Mandate Reform Act of 1995 (UMRA), which is inapplicable to this permitting action. The UMRA applies to rulemaking, and not individual NPDES permit decisions. 2 U.S.C. § 1555 ("... for purposes of this subchapter the term 'Federal mandate' means any provision in **statute or regulation or any Federal court ruling** that imposes an enforceable duty upon State, local, or tribal governments..." (emphasis added); 2 U.S.C. § 1501(7) (the purpose of the UMRA is, *inter alia*, "to assist Federal agencies in their consideration of proposed **regulations** affecting State, local, and tribal

governments...”) (emphasis added)⁸; see also H.R. Rep. No. 10476, at 39 (1995), reprinted in 1995 U.S.C.C.A.N. 64 (Congress contemplated that rules subject to UMRA would “follow the requirements of section 553 of title 5, United States Code [Administrative Procedure Act] * * * .”, and NPDES permit proceedings are not subject to the requirements of that section); *In re City of Blackfoot Wastewater Treatment Facility*, NPDES Appeal No. 00-32, at *18-19 (EAB September 17, 2001) (Order Denying Petition for Review)⁹ (denying in part because “The Unfunded Mandate Reform Act of 1995 is Inapplicable to NPDES Permit Decisions”, finding that “Facility-specific NPDES permits... are not regulations, but rather are licenses.”).

The comment objects to the requirement to conduct ambient monitoring of the receiving water. As a general note, EPA has broad authority under the CWA and NPDES regulations to prescribe the collection of data and reporting requirements in NPDES Permits. See CWA § 308(a)(A), 33 U.S.C. § 1318(a)(A) (specifying that permittees must provide records, reports, and other information EPA reasonably requires); CWA § 402(a)(2), 33 U.S.C. § 1342(a)(2) (requiring permittees to provide data and other information EPA deems appropriate); 40 CFR § 122.41(h) (permittees shall furnish “any information” needed to determine permit compliance); 40 CFR § 122.44(i) (permittees must supply monitoring data and other measurements as appropriate); see also, e.g., *In re City of Moscow*, 10 E.A.D. 135, 170-71 (EAB 2001) (holding that EPA has “broad authority” to impose information-gathering requirements on permittees); *In re Town of Ashland Wastewater Treatment Facility*, 9 E.A.D. 661, 671-72 (EAB 2001) (holding that CWA confers “broad authority” on permit issuers to require monitoring and information from permittees). Additionally, EPA has required ambient monitoring for several permit cycles, this is not a new requirement.

When a permittee applies to discharge a pollutant to a receiving water, EPA necessarily must understand the ambient receiving water in order to determine whether that discharge “has the reasonable potential to cause, or contribute[] to an in-stream excursion above the *allowable ambient concentration* of a State numeric criteria.” 40 CFR 122.44(d)(1)(iii) (emphasis added). Requiring the collection and submission of this data is necessary to allow EPA to properly analyze and permit a proposed discharge. Without such data, EPA would be limited in its ability to determine whether the proposed discharge has the reasonable potential to cause or contribute to a water quality standard excursion and thus would be limited in its ability to properly regulate the discharge. See CWA § 301(b)(1)(C); 40 CFR 122.44(d)(1). A permittee’s refusal to collect and submit this data may therefore be fatal to its request to discharge the pollutant in the future.

⁸ See also 2 U.S.C. § 1532 (“... before promulgating any **general notice of proposed rulemaking** that is likely to result in promulgation of any rule that includes any Federal mandate that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100,000,000 or more... in any 1 year, and before promulgating **any final rule for which a general notice of proposed rulemaking was published**, the agency shall...”) (emphases added).

⁹ Order available online at:

[https://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/Published%20and%20Unpublished%20Decisions/FDA156ABE18B7BD385257069005F7D3B/\\$File/blackfoot.pdf](https://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/Published%20and%20Unpublished%20Decisions/FDA156ABE18B7BD385257069005F7D3B/$File/blackfoot.pdf)

Comment 21

PFAS and Adsorbable Organic Fluorine (AOF). Section II.A.1 table and Footnotes 14&15. First note that the footnote number on HSC's site-specific table is incorrect for influent AOF and reads footnote 14 and should instead read footnote 15. EPA must acknowledge that these tests and the frequency being requested put a significant strain on the manpower resources available and are very costly to perform. One PFAS test costs \$420 and one AOF test costs \$1,100. For the HSC, not counting tests in the collection system which we address in a later comment, these tests will cost HSC an additional \$18,240/yr in lab costs alone. In footnotes 14&15 it's stated that there is no analytical method for these parameters that has been approved in 40 CFR Part 136. Until an approved method exists in 40 CFR Part 136, Underwood requests that the requirement to perform PFAS and AOF tests be removed from the general permit.

Response 21

EPA has corrected the typographical error referencing footnote 14 in all draft authorizations.

See Responses 6 and 11.

Comment 22

Pollutant Scan. Section II.A.1 table and Footnote 17. The requirement for HSC to perform Pollutant Scan testing of the receiving stream is an unfunded mandate. It is the responsibility of the Federal and State government to monitor the health of the receiving waters, not the individual dischargers. Underwood requests that the requirement to perform a Pollutant Scan on the receiving water be removed from the general permit. This requirement as written will result in multiple entities spending large amounts of money to collect more poor quality data using non-clean sampling techniques that should not be used for permit setting.

Response 22

See Response 10.

Regarding unfunded mandate and data quality, see Response 20.

Comment 23

Adaptation Planning. Section II.C.1.a, Components 1, 2, & 3. Creating an adaptive measures plan with funding and implementation schedule for the wastewater treatment facility and the entire collection system will be a major undertaking requiring HSC to retain multiple consultants and authorization of funding to do so. After identifying the assets at risk, developing appropriate correction measures and securing the funding to implement them will take years. Underwood believes that the timeframe for which these components are required to be completed is much too aggressive. At best, the full five years of the current permit cycle should be allowed and

preferably longer. Underwood requests that EPA modify the timeframes for the three components to be 36 months, 48 months, and 60 months, respectively.

Response 23

See Response 2.

Comment 24

Industrial Users. Section II.E.4. Hooksett does not have and is not required to have an Industrial Pretreatment Program (IPP). Given that an approved PFAS testing method does not exist in 40 CFR Part 136, the test is extremely expensive and can only be conducted by trained staff, and there has been no indication as of yet that the HSC's influent contains high levels of PFAS, it makes no sense to require testing of individual connections in the collection system at this time. This is an unfunded mandate for the dischargers to pay to gather data for the Federal and State government. Underwood requests that Section II.E.4 be deleted from HSC's permit.

Response 24

See Response 6.

Regarding unfunded mandate, see Response 20.

E. Comments from Fred Welch, Town Manager, Town of Ashland, on January 31, 2025.

Comment 25

Total Phosphorous (TP). Section II.A. I table and Footnotes 12 & 23, and Section 11.H.4. Schedules of Compliance. The TP data used in EPA's RPC analysis cited in the Fact Sheet was not collected utilizing clean sampling techniques. Ashland maintains that only samples taken utilizing clean sampling techniques should be utilized for permit setting. Further, it is the responsibility of the Federal and State government to monitor the health of the receiving waters, not the individual dischargers. Ashland respectfully requests that our existing TP permit limit of 11.3 lbs/d be stayed through the next permit cycle to allow Ashland time to hire a consultant to conduct our own in-stream and effluent TP testing utilizing clean sampling techniques to be used in the RPC analysis.

Response 25

EPA notes that this comment was submitted on January 31, 2025 which is one day before the 11.3 lb/day limit in Ashland's 2021 individual permit went into effect on February 1, 2025. Now that the limit is effective, it is not possible to stay the limit to allow for additional data collection. In this General Permit, EPA is proposing to adjust the limit from 11.3 lb/day to 11.0 lb/day. This comment does not appear to object to this change other than objecting to the use of the data collected by the Permittee. Given that the comment does not provide any specific reason to believe the data used by EPA are invalid, beyond a conclusory assertion, EPA finds that the data are the best available data, and it is appropriate to use them in this analysis. Therefore, this comment does not result in any change to the Final General Permit.

Comment 26

PFAS and Adsorbable Organic Fluorine (AOF). Section II.A.I table and Footnotes 14&15. First note that the footnote number on our site-specific table is incorrect for influent AOF and reads footnote 14 and should instead read footnote 15. EPA must acknowledge that these tests and the frequency being requested put a significant strain on the manpower resources available and are very costly to perform. One PFAS test costs \$420 and one AOF test costs \$1,100. For Ashland, not counting tests in the collection system which we address in a later comment, these tests will cost us an additional \$12,580/yr in lab costs alone. In footnotes 14&15 it's stated that there is no analytical method for these parameters that has been approved in 40 CFR Part 136. Until an approved method exists in 40 CFR Part 136, Ashland requests that the requirement to perform PFAS and AOF tests be removed from the general permit.

Response 26

See Response 21.

Comment 27

Pollutant Scan. Section II.A. 1 table and Footnote 17. The requirement for Ashland to perform Pollutant Scan testing of the receiving stream is an unfunded mandate. It is the responsibility of the Federal and State government to monitor the health of the receiving waters, not the individual dischargers. Ashland requests that the requirement to perform a Pollutant Scan on the receiving water be removed from the general permit. This requirement as written will result in multiple entities spending large amounts of money to collect more poor quality data using non-clean sampling techniques that should not be used for permit setting.

Response 27

See Response 10.

Regarding ambient monitoring, unfunded mandate and data quality, see Response 20.

Comment 28

Adaptation Planning. Section II.C.1.a, Components 1, 2, & 3. Creating an adaptive measures plan with funding and implementation schedule for the wastewater treatment facility and the entire collection system will be a major undertaking requiring the procurement of multiple consultants and authorization of funding to do so. After identifying the assets at risk, developing appropriate correction measures and securing the funding to implement them will take years. Ashland feels very strongly that the timeframe for which these components are required to be completed is much too aggressive. At best the full five years of the current permit cycle should be allowed and preferably longer. Ashland requests that EPA modify the timeframes for the three components to be 36 months, 48 months and 60 months, respectively.

Response 28

See Response 2.

Comment 29

Industrial Users. Section II.E.4. Ashland does not have and is not required to have an Industrial Pretreatment Program (IPP). Given that an approved PFAS testing method does not exist in 40 CFR Part 136, the test is extremely expensive and can only be conducted by trained staff, and there has been no indication as of yet that Ashland's influent contains high levels of PFAS, it makes no sense to require testing of individual connections in the collection system at this time. This is an unfunded mandate for the dischargers to pay to gather data for the Federal and State government. Ashland requests that Section II.E.4 be deleted from our permit.

Response 29

See Response 6.

Regarding unfunded mandate, see Response 20.

F. Comments from Jessica Cyr, Town Manager, Town of Lancaster, on January 31, 2025.

Comment 30

PFAS and Adsorbable Organic Fluorine (AOF). Section II.A.1 table and Footnotes 14&15. First note that the footnote number on our site-specific table is incorrect for influent AOF and reads footnote 14 and should instead read footnote 15. EPA must acknowledge that these tests and the frequency being requested put a significant strain on the manpower resources available and are very costly to perform. One PFAS test costs \$420 and one AOF test costs \$1,100. For Lancaster, not counting tests in the collection system which we address in a later comment, these tests will cost us an additional \$12,580/yr in lab costs alone. In footnotes 14& 15 it's stated that there is no analytical method for these parameters that has been approved in 40 CFR Part 136. Until an approved method exists in 40 CFR Part 136, Lancaster requests that the requirement to perform PFAS and AOF tests be removed from the general permit.

Response 30

See Response 21.

Comment 31

Pollutant Scan. Section II.A.1 table and Footnote 17. The requirement for Lancaster to perform Pollutant Scan testing of the receiving stream is an unfunded mandate. It is the responsibility of the Federal and State government to monitor the health of the receiving waters, not the individual dischargers. Lancaster requests that the requirement to perform a Pollutant Scan on the receiving water be removed from the general permit. This requirement as written will result in multiple entities spending large amounts of money to collect more poor quality data using non-clean sampling techniques that should not be used for permit setting.

Response 31

See Response 10.

Regarding ambient monitoring, unfunded mandate and data quality, see Response 20.

Comment 32

Adaptation Planning. Section II.C.1.a, Components 1, 2, & 3. Creating an adaptive measures plan with funding and implementation schedule for the wastewater treatment facility and the entire collection system will be a major undertaking requiring the procurement of multiple consultants and authorization of funding to do so. After identifying the assets at risk, developing appropriate correction measures and securing the funding to implement them will take years. Lancaster feels very strongly that the timeframe for which these components are required to be completed is much too aggressive. At best the full five years of the current permit cycle should be allowed and preferably longer. Lancaster requests that EPA modify the timeframes for the three components to be 36 months, 48 months and 60 months, respectively.

Response 32

See Response 2.

Comment 33

Industrial Users. Section II.E.4. Lancaster does not have and is not required to have an Industrial Pretreatment Program (IPP). Given that an approved PFAS testing method does not exist in 40 CFR Part 136, the test is extremely expensive and can only be conducted by trained staff, and there has been no indication as of yet that Lancaster's influent contains high levels of PFAS, it makes no sense to require testing of individual connections in the collection system at this time. This is an unfunded mandate for the dischargers to pay to gather data for the Federal and State government. Lancaster requests that Section II.E.4 be deleted from our permit.

Response 33

See Response 6.

Regarding unfunded mandate, see Response 20.

G. Comments from Tony Cavaliere, Superintendent of Utilities, Town of Jaffrey, on February 3, 2025.**Comment 34**

The Town of Jaffrey is in receipt of the draft NPDES general permit (NHG590000) from EPA. I am writing today in hopes that we can remove the requirement for a once-per-day grab-sample for "Total Residual Chlorine". The Town of Jaffrey does not use chlorine for disinfection and we do not have a contact tank. We currently use, and have used since the plant was built, ultraviolet disinfection for our effluent. Performing a grab sample every day for a process we do not utilize is not a productive use of our time and resources.

Response 34

EPA acknowledges that Jaffrey does not utilize chlorine in its treatment process. However, as noted on pages 21 of the Fact Sheet, this monitoring requirement is included for the following reason:

“EPA notes that even facilities that do not regularly use chlorine for disinfection will receive TRC limits to ensure that such limits are in place should the facility need to use chlorine in the future for any reason (*e.g.*, UV system failure, maintenance, or upgrade).”

Page 22 of the Fact Sheet goes on to say the following:

If chlorine is not used during any given monitoring period, the Permittee shall report the appropriate NODI Code (indicating no discharge of the pollutant) and is not required to monitoring for TRC during that monitoring period.”

Therefore, the Town of Jaffrey is not required to monitor for TRC unless they begin to add chlorine in the future.

H. Comments from Town of Derry, on February 5, 2025.

Comment 35

EPA Region 1 recently issued Derry a Draft Medium WWTP NPDES Permit to replace our current individual permit NH0100056. This new General Permit is being issued to 21 wastewater treatment facilities in New Hampshire that are > 1 MGD up to 5 MGD in permitted discharge flow.

The Town has reviewed our draft permit (NHG590011) and has also retained two consultants (Underwood Engineers, Inc. and OspreyOwl Environmental, LLC.) to review and comment on our behalf. Underwood's comments are incorporated in the following text; Osprey Owl's comments are attached to this letter and shall be considered Town of Derry comments. In summary the following areas of the draft permit will be commented on: New Total Phosphorous Limit; New PFAS and AOF Testing; New Pollutant Scan Testing; New Adaptation Planning Requirements; New PFAS Testing for Industrial Users; New Toxicity Violation Procedures. The New Toxicity Violation Procedures are solely commented on in the attachment to this letter.

Response 35

EPA acknowledges receipt of this comment and has responded to these issues where they are raised below.

Comment 36

Total Phosphorous (TP). Section II.A.I table and Footnotes 12 & 23, and Section II.H.4. Schedules of Compliance. Derry maintains that only samples taken utilizing clean sampling techniques should be utilized for permit setting. To ensure that quality clean sampling data has been collected for Derry, we engaged a private consultant, OspreyOwl Environmental, LLC., to sample our effluent and our receiving stream for TP. Based on the quality data that OspreyOwl has collected, there is no reasonable potential for Derry's effluent to cause or contribute to an exceedance above the in-stream water quality level for TP in the Merrimack River. Please refer to this data and the RPC analysis by OspreyOwl attached. Derry respectfully requests that the TP limit contained in our site-specific effluent limits table be removed. We also request that the

requirement to sample ambient TP in the Merrimack River be removed for the same reason as well as the fact that this is an unfunded mandate. It is the responsibility of the Federal and State government to monitor the health of the receiving waters, not the individual dischargers. Please also note that there is an error on the Fact Sheet Page 35 of 62 that lists Derry's proposed TP limit as 61.7 lbs/d rather than 71.2 lbs/d.

Response 36

See Response 20 regarding the use of data and unfunded mandate concerns.

See Response 43 regarding the phosphorus limit.

EPA acknowledges the typographical error described in this comment. Although the Fact Sheet cannot be updated at this time, EPA notes the correction here for the record.

Comment 37

PFAS and Adsorbable Organic Fluorine (AOF). Section II.A.1. table and Footnotes 14&15. First note that the footnote number on our site-specific table is incorrect for influent AOF and reads footnote 14 and should instead read footnote 15. EPA must acknowledge that these tests and the frequency being requested put a significant strain on the manpower resources available and are very costly to perform. One PF AS test costs \$420 and one AOF test costs \$1,100. For Derry, not counting tests in the collection system which we address in a later comment, these tests will cost us an additional \$12,580/yr in lab costs alone. In footnotes 14&15 it's stated that there is no analytical method for these parameters that has been approved in 40 CFR Part 136. Until an approved method exists in 40 CFR Part 136, Derry requests that the requirement to perform PF AS and AOF tests be removed from the general permit.

Response 37

See Response 21.

Comment 38

Pollutant Scan. Section II.A. 1 table and Footnote 17. The requirement for Derry to perform Pollutant Scan testing of the receiving stream is an unfunded mandate. It is the responsibility of the Federal and State government to monitor the health of the receiving waters, not the individual dischargers. Derry requests that the requirement to perform a Pollutant Scan on the receiving water be removed from the general permit. This requirement as written will result in multiple entities spending large amounts of money to collect more poor-quality data using non-clean sampling techniques that should not be used for permit setting.

Response 38

See Response 10.

Regarding ambient monitoring, unfunded mandate and data quality, see Response 20.

Comment 39

Adaptation Planning. Section II.C.1.a, Components 1, 2, & 3. Creating an adaptive measures plan with funding and implementation schedule for the wastewater treatment facility and the entire collection system will be a major undertaking requiring the procurement of multiple consultants and authorization of funding to do so. After identifying the assets at risk, developing appropriate correction measures and securing the funding to implement them will take years. Derry feels very strongly that the timeframe for which these components are required to be completed is much too aggressive. At best the full five years of the current permit cycle should be allowed and preferably longer. Derry requests that EPA modify the timeframes for the three components to be 36 months, 48 months and 60 months, respectively.

Response 39

See Response 2.

Comment 40

Industrial Pretreatment Programs. Section II.F.6. Given that an approved PFAS testing method does not exist in 40 CFR Part 136, the test is extremely expensive and can only be conducted by trained staff, and there has been no indication as of yet that Derry's influent contains high levels of PFAS, it makes no sense to require testing of individual connections in the collection system at this time. This is an unfunded mandate for the dischargers to pay to gather data for the Federal and State government. Derry requests that PFAS testing requirements be deleted from Section 11.F.6 of our permit.

Response 40

See Response 6.

Regarding ambient data collection and unfunded mandate, see Response 20.

Comment 41

PFAS and AOF Requirements

1. In Section II General Permit Requirements there are 25 associated footnotes. Footnote 2. reads,

"In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter Nor O, for the analysis of pollutants or pollutant parameters (except WET). The tests for PFAS and adsorbable organic fluorine have not, at the time of the issuance of the draft permit, completed the promulgation process. In the rule (URL; [View Rule](#))¹, there is no Final Action on the CWA Methods Update Rule for the Analysis of Contaminants in Effluent regarding PFAS and a method-defined parameter for adsorbable organic fluorine. As stated, 'Final Action' is 'To Be Determined.' Until promulgation is final, these parameters should not be included in this footnote reference.

In December of 2024, the EPA proposed the following: *Method 1633A was proposed for approval at 40 CFR Part **136.3** in December 2024 (docket number EPA-HQ-OW-2024-0328).*

However, Method 1633A is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking. As this step in the approval process has yet to be completed, the request for PFAS and AOF sampling and analysis does not comport with the conditions of Footnote 2. These requirements should be removed from the permit, or the permit delayed until such time the methods are approved and included in 40 CFR Part 136.

Footnotes 14 and 15 would be affected by the above comment. EPA also states that *"Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633."* Note the approval that is being sought by the EPA is 1633A. The language is also similar in footnote 15, *"Until there is an analytical method approved in 40 CFR Part 136 for Adsorbable Organic Fluorine, monitoring shall be conducted using Method 1621."* Adsorbable Organic Fluorine is a speculative test for finding sources of PFAS. There are noted problems with the results and interferences and several non-PFAS compounds can also be measured in the 1621 analysis providing higher non-PFAS concentrations (see section 4.0 of this EPA link [Method 1621 Determination of Adsorbable Organic Fluorine \(AOF\) in Aqueous Matrices by Combustion Ion Chromatography \(CIC\)](#)).²

The EPA further states the following, *"The EPA's Office of Water has published Method 1621, "Determination of Adsorbable Organic Fluorine (AOF) in Aqueous Matrices by Combustion Ion Chromatography {CIC}," a method to measure the aggregate concentration of organofluorines (molecules with a carbon-fluorine bond) in wastewater. The most common sources of organofluorines are PFAS and non-PFAS fluorinated compounds such as pesticides and pharmaceuticals."*

*AOF is a method-defined parameter, meaning that the results of the measurement are dependent on the manner in which the measurement is made. The method does not quantify all of the organofluorine it captures with the same accuracy and has some known interferences that are discussed in the first section of the method (see Method 1621 link above). The method tells the user that organofluorines are present but cannot identify which specific organofluorines are present. The strength of the method is that it can broadly screen for thousands of known PFAS compounds at the **part per billion level** in aqueous (water) samples.*

The Office of Water led a multi-laboratory validation study of Method 1621. The Office of Water used the results of the multi-laboratory validation study to finalize the method and develop formal performance criteria. The Office of Water encourages interested parties to review and use the method, with the understanding that it may undergo revision during a rulemaking process. Method 1621 is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking. [CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances \(PFAS\)](#) | US EPA³

Note the method measures in the microgram per liter range (ug/l) and the request by the EPA in footnote 15 is for measurement in nanograms per liter (ng/l). This test is not compatible with the EPA's request to measure down to the parts per trillion.

¹View Rule

² [Method 1621 Determination of Adsorbable Organic Fluorine \(AOF\) in Aqueous Matrices by Combustion Ion Chromatography \(CIC\)](#)

³CWA [Analytical Methods for Per- and Polyfluorinated Alkyl Substances \(PFAS\)](#) | [US EPA](#)

Response 41

See Response 11.

Comment 42

2. The current EPA's position nationally was only to have wastewater treatment plants 10 MGD or larger to begin testing for PFAS and Adsorbable Organic Fluorine. EPA has a heavily populated website on the 'POTW Influent PFAS Study' ([POTW Influent PFAS Study | US EPA](#)). There was an initial Register notice posted on March 26, 2024, with comments to be received by May 28, 2024 ([Federal Register:: Proposed Information Collection Request; Comment Request; POTW Influent PFAS Study Data Collection](#)). In this notice, questionnaires were to be sent to 400 of the largest WWTPs out of the 12,000 (2.7% of the total WWTPs) in the US. Mandatory responses were required and subsets of 200 - 300 plants would be asked to conduct specific sampling in two phases. The Phase One expectation cited, *"Phase 1 will require each selected POTW to collect and analyze one-time grab samples of industrial user effluent, domestic wastewater influent, POTW influent, and POTW effluent for forty specific PFAS and adsorbable organic fluorine (AOF). For each POTW selected, the EPA intends to specify no more than ten industrial users for which the POTW must collect and analyze effluent samples. The total number of industrial users sampled as part of the sampling program is not expected to exceed 2,000 facilities. Phase 2 will require selected POTWs to collect and analyze one-time grab samples of sewage sludge for forty specific PFAS and ancillary parameters."* At 200 subset plants with 2,000 industrial facilities equates to 2,400 tests. If it is 300 facilities it is 2,600 tests. In the Phase I Study the EPA calls for a one-time grab of the industrial user's effluent (2,000 tests) and a one-time grab of the plant's influent and effluent (400 to 600) tests. At most there will be 2,600 tests run in phase I. EPA estimates that Phase I will get underway in 2025.

The Office of Management and Budget did a cost analysis for the above study.⁴ The treatment plants would need to dedicate 25,640 hours for 5.5 million dollars. That is only administrative costs and sampling field work. That amounts to \$2,115.38 for each of the 2,600 tests run in phase 1. The current cost for one PFAS sample is approximately \$500.00. The cost for AOF is approximately \$440.00. The total cost per test is \$3,055.38. At 22 required tests annually (12 for the plant, inf, eff, sludge, and anticipate 10 industries) for each MGP the cost to each MGP WWTP would be \$67,218.36 per year.

The EPA further outlines in the comments that the participants will be divided into four categories. *"Phase I sampling will be staggered in order to distribute demand for environmental laboratories completing sample analysis. The EPA will divide the POTWs selected for wastewater sampling into four groups that contain 50-75 POTWs located across the nation. Groups will sample sequentially (i.e., Group 1 will sample and submit results to the EPA, then Group 2 will sample and submit results to the EPA, etc.) over a 16-month period."* That would be around 700 PFAS/AOF samples per quarter nationwide. The EPA in the NHGP is expecting

the 21 medium plants to analyze influent, effluent, and sludge once per quarter along with one sample from potential industries (estimate 10 per facility from the list in Item 4 on page 17 of 28 in the Medium General Permit). That would be 462 PFAS samples from small plants. This is an extreme overreach by the regulatory agency and does not comport with the Register Notice of the Phase I and Phase II PFAS/AOF nationwide study. It will also swamp the analytical laboratories as noted by EPA.

A second Federal Register Notice was issued on October 10, 2024, with comments due by November 12, 2024, ([Federal Register: Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Publicly Owned Treatment Works \(POTW\) Influent Per- and Polyfluoroalkyl Substances \(PFAS\) Study and National Sewage Sludge Survey \(NSSS\) \(New\)](#)). More specifics were included with this posting including leaving the POTW size at >10 MGD, the EPA was still looking at 400 facilities participating and now the population size of > /= 50,000 service population was added. Also, note that the study was to include only 10 industrial facilities from each of the participating WWTPs. Derry has approximately 35,000 residents and certainly, none of the 21 facilities that will participate in this Medium General Permit have a service population of 50,000.

EPA cites this study in the above roadmap expectation in their November 2024 Annual PFAS update release titled, 'EPA's PFAS Strategic Roadmap': *Three Years of Progress*,⁵ "The EPA is also moving forward with a nationwide study of PFAS influent and sewage sludge at wastewater treatment facilities and is expected to publish updates on its information collection request in the near future before beginning a two-year study effort. It is obvious this is step one and that the information gathered from the >10 MGD study may set parameters for Medium and Small General Permit WWTPs in a future NPDES issuance.

Derry includes the following information from the EPA's PFAS Sampling Plan;

Sampling⁶

The EPA will use the information and data collected in the questionnaire to select 2,000 industrial users to be sampled by 200 to 300 POTWs. Each POTW selected for sampling will be required to collect the following:

- 10 samples on average from different industrial users (!Us) selected by the EPA
- A domestic sample
- POTW influent and effluent samples
- QC samples

The EPA will provide a sampling plan with detailed information on what is required of selected POTWs and how to complete the sampling. As part of sampling, POTWs will be responsible for the following:

- obtaining sampling supplies

- *contracting labs for analysis*
- *collecting samples specified by the EPA*
- *notifying EPA when samples are submitted for analysis*
- *reviewing and compiling the sample results in the specified format*

In an effort to both improve lab capacity and reduce costs associated with analyzing wastewater samples from 200 to 300 POTWs simultaneously using EPA Methods 1633 and 1621, the EPA will stagger sampling and analysis. Selected POTWs for sampling and analysis will be broken up into 4 groups, with each group containing a geographical spread of POTWs from across the country. All samples will be grab samples. Samples will be analyzed using EPA Method 1633, which measures 40 PFAS analytes, and EPA Method 1621, which measures adsorbable organic fluorine {AOF}.

EPA intends to conduct the study (which has yet to begin as final Phase II comments were recently submitted by the November 12, 2024 deadline and the Annual PFAS Report (indicates the finalization of the study is at least 2 and½ years out} and the target WWTP parameters are > 10 MGD with a service population of 50,000 or greater. The study only includes large WWTPs with one influent and effluent test and not the quarterly PFAS/AOF requirements as outlined in this draft MGP. The Town of Derry respectfully requests that all PFAS and Adsorbable Organic Fluorine sampling and reporting requirements be removed from the final issued MGP590011 NPDES Permit.

⁴ 2799ss01 - OMB

⁵ [epas-pfas-strategic-roadmap-2024_508.pdf](#)

⁶ EPA's PFAS Study Design Section on this website - [POTW Influent PFAS Study](#) | [US EPA](#)

Response 42

See Response 12.

Comment 43

Total Phosphorus

The Effluent Limitations Table has a Total Phosphorus limit of 71.2 lbs/day for average monthly discharge. This median upstream data was calculated from four data points.

65 µg/l EPA 7/27/2010

82 µg/l EPA 9/21/2010

25 µg/l EPA 5/17/2012

79 µg/l EPA 8/10/16

The usual EPA standard is to gather data recent data from the previous five-year permit and perform the 'Reasonable Potential' calculation (RPC). Two data points are 14 years old, one is 12 years old and the final one is eight years old. All are outside the typical datasets used by EPA in RPC.

Since the last collected data set the City of Manchester's WWTP has installed an AO phosphorus treatment system with an effluent TP limit of 226 pounds. The above data would not apply to the current conditions within the Merrimack River due to a drastic change in upstream TP Calculations as a result of Manchester's upgrade.

The Town of Derry conducted a 'Clean Sample' project this summer for TP and total aluminum. The data collected is as follows (Note the Standard Deviation for effluent TP is 377 ug/L).

Town of Derry

DATE	River Flow	TP	TP Dup	Eff TP
6/25/2024	5,100	29	29	5,100
6/27/2024	3,200	20	22	5,200
7/2/2024	3,080	24	23	5,300
7/18/2024	1,570	37	36	5,800
8/21/2024	2,400	24	26	6,000
8/23/2024	1,930	19	19	5,900
9/6/2024	1,060	20	20	5,900
9/11/2024	1,210	39	39	5,700
10/4/2024	1,230	55	55	5,000
10/11/2024	1,010	90	88	5,300
				376.53
	Median	<u>27</u>	<u>28</u>	

The effluent TP is quite tight for the critical months of June through October. The median variation is 377 ug/L illustrating that the discharge from a lagoon with a typical 60+ day detention time is well mixed and only varies slightly when samples are taken via a 'Clean Sample' method. The sample bottles were prepared clean and double-bagged. The bag was only opened briefly to take a grab sample from the effluent sample faucet in the chlorination area.

The upstream median concentration is 27 ug/L for the original samples and 28 ug/L for the duplicate samples. The EPA requires one data point for the monthly average sample. The following is the average monthly TP of both initial and duplicate samples for the month with the median values last.

Avg Monthly WET Test Results ug/l

25	Month of June Avg
30	Month of July Avg
22	Month of Aug Avg
29.5	Month of Sept Avg
72	Month of Oct Avg
29.5	Median Value

Taking the summer 'Clean Sample' testing and including the EPA's RPC values, the following table is generated.

WET Test Results ug/l with EPA Calcs

25	Month of June Avg
----	-------------------

30 Month of **July** Avg
 22 Month of **Aug** Avg
 29.5 Month of **Sept** Avg
 72 Month of **Oct** Avg
 65 EPA **7/27/2010**
 82 EPA **9/21/2010**
 25 EPA **5/17/2012**
 79 EPA **8/10/16**
 30 **Median Value**

The median value between the 'Clean' data set and the data set including EPA's outdated values has a median value of 29.5 ug/l vs 30 ug/l. Both data sets are still able to balance the median value.

The 7Q10 flow for the Merrimack River is 725.64 CFS with a plant design of 4.02 mgd and a dilution factor of 105.6: 1. The 7Q10 is 468.8 million gallons. The plant's lowest monthly average flow was 1.02 mgd in August of 2022.

The method to determine total phosphorus RPC is as follows;

$$QECE + QsCs = QDCD \times (0.90)$$

$$\text{and ME} = QECE \times 8.345$$

Substituting (QDCD) with (ME/8.345) in the first equation and solving for ME results in:

$$ME = (QDCD \times (0.90) - QsCs) \times 8.345$$

ME = mass-based phosphorus limit

1.02 QE = eff flow in MGD (lowest monthly average August 2022 = 1.02 MGD)

0.03 CS = upstream median river phosphorus concentration (0.013 mg/L)

7 CE = effluent phosphorus concentration in mg/L

468.8 QS = upstream 7Q10 flow (390.7 MGD)

469.82 QD = downstream flow (391.9 MGD)

0.1 CD = downstream river TP concentration (Gold Book target = 0.100 mg/L)

0.9 0.90 = factor to reserve 10% assimilative capacity

8.345 = factor to convert from MGD * mg/L to lb/day

$$ME = [(469.82)(0.1)(0.9) - (468.8)(0.030)] \times 8.345 = 235.52 \text{ lbs}$$

$$42.28 \quad 14.06 \quad \times 8.345 = 252.52$$

235.52 Downstream Capacity

131.7 Maximum Derry Load

55.9% Percent of downstream capacity used

44.1% Capacity is still available

No 'Reasonable Potential' to violate WQ

Response 43

EPA appreciates the additional phosphorus data collection effort by the Town of Derry. EPA agrees that the results demonstrate a median background concentration of approximately 30 µg/L. Based on this background concentration and the 95th percentile effluent value of 6.3 mg/L, the resulting projected downstream concentration would be

0.084, which is slightly below 0.090 mg/L (*i.e.*, the target concentration of 0.1 mg/L times 0.9 to reserve 10% assimilative capacity). Therefore, EPA finds that there is no reasonable potential, and the limit has been removed from the Final General Permit.

However, given that the analysis was close to triggering the need for a limit, EPA is requiring a 1/Month monitoring requirement from April through October. Further, the ambient monitoring requirement has not been removed.

Comment 44

Adaptation Planning

Section C, 1., Adaptation Planning covers four pages of the draft permit with 12 footnotes. In the draft Medium General Permit, Appendix D, Fact Sheet the EPA outlines the authority given by statute to enforce the Adaptation Planning requirements. In Section C, Legal Authority EPA cites the following;

a. "The Adaptation Plan requirements are an iterative update to EPA's standard O&M permit provisions and intend to address serious and increasingly prevalent threats to Permittees' compliance with permit's effluent limitations.

b. Footnote 31: Congress has recently expressly affirmed that natural hazard adaptation measures for POTWs appropriately fall within the scope of the CWA: Congress added section 223 to the CWA via the Infrastructure Investment and Jobs Act, creating a grant program to support, *inter alia*, "the modification or relocation of an existing publicly owned treatment works, conveyance, or discharge system component that is at risk of being significantly impaired or damaged by a natural hazard[]." Pub. L. 117-58, 135 Stat. 1162 (codified at 33 U.S.C. § 1302a(c)(4)){2021}.

c. EPA's O&M regulations authorize EPA to impose the Adaptation Plan requirement. 40 C.F.R. § 122.41(e) ("Proper operation and maintenance.

d. CWA § 402(a)(2) ("[EPA] shall prescribe conditions for {NPDES} permits to assure compliance with the [applicable CWA] requirements ... as he deems appropriate."); CWA §§ 301(b)(1)(C), 401(a)(1)-(2); see also 40 C.F.R. § 122.4(d) ("No permit may be issued ... When the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States"); See also 40 C.F.R. § 122.44(d)(1). The provisions are reasonable measures rooted in the permitting requirements to properly operate and maintain all facilities and the duty to take all reasonable steps to minimize or prevent any discharge in violation of the permit. 40 C.F.R. § 122.41(d), (e).

e. 45 Fed. Re. 33290, 33303-04 (May 19, 1980). In 1980 and now, the proper operation and maintenance of a facility - including the Adaptation Plan requirements - effectuates the permit limits on all addressed pollutants and protects all applicable water quality standards, as they assure that such limits will be met, even in times of major storms or during flood events.

Starting with the earliest citation (e) the EPA references a Federal Register document, Vol. 45, No. 98 published on Monday, May 19, 1980. Nowhere in that Register Notice, as the EPA indicates in (e) does it say prevention of future flooding and include Adaptation Plan requirements. Item 7) on page 33303 outlines what Proper Operation and Maintenance is and references back to the statutes in place at the time §122.11(g) (now §122.7(e)) required the permittee to "maintain in good working order and operate efficiently all facilities and systems of treatment of control which are installed or used by the permittee to achieve compliance with the terms and conditions of the permit." The second sentence further defined "proper operation and maintenance" as including "effective performance based on designed facility removal, adequate funding, effective management, adequate operator training, staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures." This requirement is clearly authorized for NPDES permittees by section 402(a)(2) of the CWA which required the Administrator to prescribe permit conditions which will assure compliance with the requirements of CWA section 402(a)(1).

The examples are clear, flooding and natural disaster prevention were never considered as part of the Proper Operation and Maintenance. Congress had no intentions of wastewater treatments requiring the inclusion of Adaption Planning as a requirement of the NP DES or the CWA as is clear in the CFR notice.

Footnote 31 is cited as Congress' intention to add adaption measures to the CWA under section 223. In review of the Act under definition entity indicates municipalities are eligible. Hazards are extreme weather events and natural forces. The term "program" means the clean water infrastructure resilience and sustainability program established under subsection (b). Establishment Subject to the availability of appropriations, the Administrator shall establish a clean water infrastructure resilience and sustainability program under which the Administrator shall award grants to eligible entities for the purpose of increasing the resilience of publicly owned treatment works to a natural hazard or cybersecurity vulnerabilities.

Once again, the intention of Congressional action is clear, "shall award grants to eligible entities for the purpose of increasing the resiliencies of POTWs". It does not say all NPDES permit holders and it refers directly to those plants that are eligible. The designation 'Eligible Entity' is used several times through the section 'Use of Funds.' The Infrastructure Act indicates that 'Eligible Entities' will receive 75% funding and should not exceed 90% for communities under 10,000 population. The Administrator could also grant a waiver to pay 100% of the cost. There is absolutely no Congressional intent to include this requirement in all NPDES permits going forward. The phrase 'reasonable requirements' is used in several sections of the law cited by the EPA. Many of the requested actions, deadlines, and self-funding requirements are regulatory overreach that is beyond 'reasonable requirements.'

On June 28, 2024, The Supreme Court in the case of Loper Bright Enterprises vs. Raimondo and the sister case of Relentless vs. Dep't of Commerce overturned the longstanding Chevron USA vs. the Natural Resources Defense Council. Regulatory Agencies were given deference when a statute was unclear or ambiguous. In the references the EPA cites in Appendix D, Legal Authority it is clear that operation and maintenance is for the plant and all processes under its control for

the effective treatment of wastewater and not to be able to offset the impacts of natural disasters. It is clear the intent of the Infrastructure Act the EPA cites is for certain eligible plants that the Act funds between 75% and 100% of the implementation of the program. It is a program and not an NPDES requirement. The Chevron decision was overturned to prevent this exact type of overreach.

Some things are reasonable in the Adaptation Planning section that the Town of Derry can agree to. Section a. Adaptation Plan, most of Component 1. and many of the footnotes with minor modifications are agreeable and could begin to lay a foundation for future information should Derry be considered one of the eligible plants for Infrastructure funding. Footnote six being, "Baseline conditions" refers to the 100-year flood based on historical records. The plant was designed for these conditions and the High Flow Management Plan addresses facility stresses and actions to take when this condition is approached or exceeded.

Footnotes 10 onward and Component Two and Component Three are premature as there are several models, monitoring stations, and planning that need to be completed by the USGS and the NHDES Dam Control Bureau before implementation of the adaptation plans produce reliable and cost-effective impacts to flood control.

Executive Order 14008 (Federal Register :: Tackling the Climate Crisis at Home and Abroad) published January 27, 2021, outlines the path the government is to take in the execution of the conditions of the Executive Order. Sec 102(e) is specific regarding the process to include input from various agencies and domestic stakeholders. In reading through the order there are several references to the Government Agencies coordinating and receiving input from local governments, communities, and stakeholders. There was no input from the MGP WWTPs on all these mandated projects before the receipt of the draft NPDES permit. This comment period is the only opportunity Derry has for input on this draft permit. Once the permit is finalized, the Town is mandated to uphold all the conditions and the NPDES Permit becomes law without any further input as required by Executive Order 14008.

Before any Medium General Permittee can go forward, a look back at the historic flooding in NH is required.

There is a document produced by the FEMA in July of 2008⁷. The document reviews the key findings of the 2006 Mother's Day Flood which happened only 11 months prior to the catastrophic flooding of April 2007. The main causes of each flooding event were different. The May 2006 event was a result of 6" to 14" of rainfall over two days. The April 2007 event had 4" to 8" of rainfall, but this event was exacerbated by rapid snow melt. These two events are compared to floods of 1936, 1938, 1960, 1987, 1991, and 1998. Table 2-7 of the report lists the historic severe flooding events. Listed below are events that happened before the Clean Water Act of 1972 and the historic nationwide building of wastewater treatment plants from the early 1970s through the mid-1980s. The first listed was in December of 1740. Next was October 23, 1785, then March 24-30, 1826, followed by April, 21-24, 1852, then 10 years later flood of April 19-22, 1862 (due strictly to snow melt), then a subsequent flood of October 3-5, 1869 (6" to 12" of rain), a November 3, 1927 flood, March 11-21, 1936 (first due to rain followed by subsequent

contribution by both snowmelt and rain), the September 21, 1938 hurricane, the June 1943 flooding in the lower Merrimack, and then again in June of 1944, November 1950, March 27th 1953, August of 1955, October 25, 1959, December 1959, April 1960, April 1969, February of 1972 and finally June of 1972 before the implementation of the Clean Water Act. That's 17 historic flooding events before a spade was put into the ground for the WWTPs funded 95% (75% federal and 20% state with a 5% obligation by the municipality). There were 16 additional flooding events after the June 1972 event and the implementation of the CWA. This demonstrates that severe flooding events are nothing new and very similar to events after the CWA regarding intensity, duration, causality, and destructiveness.

With all this historical knowledge and follow-up studies with reports on how to abate the destructiveness of these types of storms, all of the 21 MGP plants were still built in the lowest-lying areas to take advantage of gravity flow for the community being served. The FEMA study states, *"Flood events that occurred in the last century could be more damaging if they occurred today. Development, often in the floodplain, has grown. Development reduces the ability of flood waters to pass unimpeded and increases flow rates. South central and southeastern New Hampshire experienced two very large floods in 2006 and 2007. Depending on location, they ranged from 10-year flood events to over 500-year flood events."*

There was a forewarning of these types of disasters drafted by the Department of the Interior (595 pages) titled, 'Hurricane Floods of September 1938'¹⁸ that was published by the USGS in 1940. This was 30 years before the CWA and 94 years before today's mandate for Adaptation Planning. In the General Features of the Storm section it states, *"it appears that the magnitude of the floods may have been determined in part by meteorological conditions not intimately associated with the tropical disturbances."* The narrative goes on to lay out the interplay of climate conditions that point to many causes. The Hurricane was one factor, a low-pressure system over Nebraska, a continental disturbance centered over northern Maine, with a high-pressure over Quebec and a low-pressure area that extended from North Carolina to Central New England. This interplay of meteorological systems held the rainfall in place longer than usual. We've witnessed similar events with the Perfect Storm of October 1991. These types of events, without the hurricanes, happen in New Hampshire, Maine, and Vermont at about the same frequency as the historical string of storms from 1927 through the inception of the CWA in 1972.

The actions laid out in the 1940 USGS report are what have been ignored post-1938 Hurricane. There is a description of how the ground's adsorptive capacity was different from the 1938 storm and a previous storm of 1927. The adsorptive capacity was capable of holding anywhere from 1" to 4" of rainfall reducing the destructive capacity of the event (if and when the adsorptive capacity was available). Much of the area from Connecticut to Central Massachusetts exceeded 17" of precipitation over four days. A 4" adsorptive capacity would have reduced the impact to 13" of rain. Table 17 on page 417 illustrates the adsorptive capacity of the 1927 storm, and Table 18 the adsorptive capacity of the 1932 storm. This would be important information to have as part of a real-time controls program similar to CSO real-time controls, to use like SCADA when storms approach and high-flow plans are activated at WWTPs.

Page 36 begins the narrative of the flooding in the Merrimack River Basin. Note the Contoocook River had flooding likely exceeding the 500-year flood levels where dams were breached, bridges destroyed and homes swept away. This fact demonstrates that there will continue to be pockets where the precipitation is heaviest and exceeds Adaptation Planning preparation.

On page 58 an insightful narrative was given, *"Lessons have been learned, and social and economic problems and problems of control and protection have arisen as a result of the disaster. The Lessons must not soon be forgotten, and the problems ought to be studied and analyzed and solutions diligently sought. Steps have already been taken towards these ends, and it seems evident that the extraordinary experiences of this disaster will provide the basis for sound measures of forewarning, control, and protections that will operate to reduce substantially the attendant social and economic crippling should any similar catastrophe strike in the future."*

Several antecedent conditions are laid out in the report. Snowpack and depth, anticipated temperatures and rate of snow melt, possible ice dams, the capacity of the soil to retain rainfall, the extent of vegetative cover, conditions where backwater exacerbated flooding, dams and controls of river volume and velocity, and increasing Curve Numbers (CN) with increasing industrialization and population growth. The most effective flood control is storage. Pages 412 and 413 outline how effective storage is in combating flooding.

Mentioned in the Merrimack River Basin storage narrative are Lake Winnepesaukee, Newfound, Squam, and Winnisquam. As an example, the report says Lake Winnepesaukee has seven billion cubic feet (52 billion gallons of storage) when drawn down 44 inches below full regulation level. A report was issued by the USACAE⁹ that demonstrates the effectiveness of dam control.

The 1940 USGS outlines the effectiveness of dam control the USACAE report demonstrates the effectiveness of dam control. The percent reduction went from a low of 19% to a high of 64% at five stations that either contributed to the flow in the Merrimack River or the Merrimack River.

Specific river stage information showing the effectiveness of Corps reservoirs is presented below.

Effectiveness of Corps of Engineers Dams						
Location	D.A. (sq. mi.)	Flood Flow (cfs)	Obs. Peak (cfs)	Natural Peak (cfs)	Reduction % ft	
Merrimack River Basin						
Merrimack R @ Concord, NH	2,385	30,200	35,400	66,300	47	7.7
Merrimack R @ Manchester, NH	3,092	46,060	74,700	106,200	30	6.3
Merrimack R @ Lowell, MA	4,635	48,000	105,750	130,950	19	2.3
Piscataquog R @ Goffstown, NH	202	3,460	10,000	14,250	30	1.8
Contoocook R @ River Hill, NH	760	11,700	10,250	28,550	64	6.0
Naugatuck River Basin						
Naugatuck R @ Beacon Falls, CT	259	8,725	7,340	16,745	56	3.8

Figure 1 Percent dam flood control, 1938 USCAE Report

Armoring a facility as is expected in the Adaptation planning can create additional life-threatening problems. During the flooding of 2006, the Main pump station wet well area and grit building were flooded with flow coming to the plant. The flow was above the grating in both buildings which resulted in our WWTP influent Main Pump Station (MPS) flooding and bypass pumping (using rented portable pumps) of raw sewage into Beaver Brook at the headworks along Transfer Lane. This began on May 14 and continued to May 16.

The grit building was flooded 93 inches (almost eight feet) above the grating level. All lift stations were pumping at their maximum with no wet wells overflowing. No effluent pumps stopped working but the treatment plant had to acquire extra pumps to prevent overflowing of the lagoons. The effluent pump station was not flooded as flows were diverted at the lagoons before reaching the effluent pump station and the main station pump motors are above grade. The automatic bar screen at the main pump station, however, was out of service while this station was flooding. Derry rented four pumps (1200 gpm) to pump excess effluent to Beaver Brook to prevent the lagoons from breaching a portion of the partially treated effluent flow was diverted from the effluent pumping station and pumped (also using rented portable pumps and an above-ground siphon we created using surplus HOPE pipe) directly from our lagoon over the berm and into Beaver Brook. This also began May 14 and continued to May 23 and then resumed June 7 and continued until June 16.

The plant pumped to the brook on and off for about 7 days until the flows came down. During the flooding, the main pump station was pumping 8.2 to 9.0 MGD continuously to the lagoons. Derry was always pumping to the Merrimack River during the flooding event without over-pressurizing the effluent discharge line. During this time, the plant also intermittently had to

pump (using portable pumps) wastewater over the berm between lagoons 1 and 2 as the gravity connection was not hydraulically adequate to keep up with the influent.

A new effluent pump station and booster pump station were built after this flooding event. The Lagoon elevation at the top of the liner is 263 ft above sea level and the plant grounds are 250 ft above sea level.

Watercraft might be needed to transport employees to and from the flooded wastewater plant property in severe flooding events. Beaver Brook would be at flood stage and the surrounding marshland would be severely flooded creating situations where plant staff would be at risk when responding to a severe flooding event.

The information contained in the 1940 USGS report, details that the poorest location for wastewater plants was at or near river levels. This put wastewater plants at ground zero for community flooding. As you can see from the below elevation map of the Derry WWTP location where the plant is barely out of the 100-year flood zone. Other higher elevations throughout Derry were more than 25 ft. above the current plant location.

The concern then (likely through the Value Engineering [VE] process) was the cost associated with pumping community wastewater up from the lower occupied elevations to an elevated WWTP and allowing the wastewater to flow back to the river via gravity. As the Federal Government and State were paying a lion's share of the cost {95%} the goal was to stretch funding the furthest to build as many WWTPs as possible. Likely, the recommendations from the USGS 1940 report were not even considered. Now, the Adaptation Plan will likely call for two or three significantly large pumps (as demonstrated in the flooding narrative) to pump the flood-contaminated wastewater to the Merrimack River that could have been incorporated into an initial high-ground WWTP location.



Section 211(d) of Executive Order 14008¹⁰ order is a guide for how the implementation of the Executive Order proceeds. "To assist agencies and State, local, and Tribal territorial governments communities, and territorial governments communities and businesses in preparing for and adapting to the impacts of climate change ... , shall provide to the Task Force a report on the ways to expand and improve climate forecast capabilities and information products for the public. Shall assess and provide to the Task Force a report on the potential development of a consolidated Federal geographic mapping service that will assist Federal, State and local, and Tribal governments in climate planning and resilience activities." The EPA points out in their Draft Strategic Plan incorporating the directives of the Executive Orders that the department still needs to improve the model of climate change impacts including how risks and economic impacts can be reduced under mitigation and adaption scenarios and how those impacts will disproportionately affect overburdened and underserved communities. From the directives cited it appears the Adaptation Planning contained in the draft NPDES is quite premature.

None of this EO14008 directive is outlined in Section C or the pages of the Fact Sheet of this NPDES Draft Permit. The EPA is expecting the Town of Derry to master these aspects of adaption scenarios when the EPA admits there is still a need for improvement in their understanding of climate change impacts.

The Town of Derry does believe that the use of the CREAT model to determine the vulnerable areas is a good starting point. The USGS and State should begin to coordinate locations for ground moisture monitors in the NH counties and historical flood zone land masses to determine adsorptive capacity. The dam stage operating plans should be included in a model that couples snowpack, ground moisture, anticipated rainfall, rainfall intensity, rainfall duration, and localized area anomalies anticipated from any storm track. CN numbers should be updated and modeled to illustrate the impacts of continued community growth on soil adsorption and

runoff intensity. This in itself will inform communities of the additional flooding impacts created when future CN curves steadily increase in flood-prone areas. This could all be rolled into a real-time climate impact model for severe storms throughout New Hampshire and calibrated over a couple of years. This would satisfy footnote 10 that the regulatory agency is trying to shift to the WWTPs with limited resources and skills in developing these type models, 11They may include but are not limited to: building or modifying infrastructure, utilization of models (including but not limited to: flood, sea-level rise and storm surge, sewer/collection system, system performance), monitoring and inspecting (including but not limited to: flood control, infrastructure, treatment) and repair/retrofit."

Then each community with a wastewater plant should be trained in the interpretation of the real-time model and how it impacts their high-flow management plans, neighborhood evacuation plans, and future growth plans. This would take 10 or more years of federal and state coordination but would be the best tool developable for an overall state Adaptation Plan rather than each plant winging it to the tune of millions of dollars of upgrades that have failed and will likely fail in the largest of storms.

Section 402 of the Clean Water Act (b)(1)(B) requires the issuance of permits that are for fixed terms not exceeding five years;" This requirement is outlined in the State designated programs also as indicated in Section 402 (a)(1)(B)(3). "EPA shall be subject to the same terms, conditions, and requirements as apply to a State permit program and permits issued thereunder under subsection (b) of this section." The administrative attempt in this draft permit is to set conditions that go well beyond the five-year permit period. EPA acknowledges this get-around proposal in Footnote 7, "These shall include both short-term (10-25 years forward-looking) and long-term (25-70 years forward-looking) relative to the baseline conditions and must include projections of flooding due to major storm and flood events using federal, state and local data, where available; b) Freeboard Value and 500-year floodplain Approach:". This is for two, five, and 16 permit cycles of mandated tasks placed in this new, MGP five-year period.

Due to the above reasons, the Town of Derry respectfully requests that footnotes 7 through 12 be removed and footnote 9 become footnote 7 (Derry agrees that the CREAT model will shed some light on how vulnerable the plant is) while entirely removing Components Item a. of footnote seven is reasonable. Item b. onward should be removed as it moves into the multi-year permit cycles. Also, Section Three, Annual Reporting, G., Adaption Planning Progress Reporting should be modified to include only reporting on the CREAT modeling and the findings from that model.

⁷ Microsoft Word - New Hampshire Flooding Analysis 7-28 for FINAL review BM.doc

⁸ report.pdf

⁹ 30 April 2003

¹⁰ 2021-02177.pdf

Response 44

See Response 2.

Comment 45

Section F, Industrial Pretreatment Programs

The industrial and commercial entities mentioned in Section F.6, for annual PFAS sampling should be removed from this MGP for the reasons indicated above. Derry does not meet any of the criteria of the EPA's > 10 MGD Phase I PFAS Study.

Response 45

See Response 12.

Comment 46

Section H, Special Conditions

In Section 5. Toxicity Violation Procedures, a. Accelerated Testing Procedures there is a requirement for a WET retest at 14 days and at 28 days of a WET test failure, death of fish or shellfish in the vicinity of the outfall, or an oily sheen noted on the surface of the water in the vicinity of the outfall.

The WET test failure may well indicate toxicity in the influent of the wastewater treatment plant. Dead fish in the vicinity of the outfall (end of Templeton Drive) could very well be from upstream death or fishing activities in the area or the Operational impacts of the Manchester, Hooksett, Concord, and Franklin treatment plants. The presumption that the death is being caused by the WWTP effluent is a reach. If this were the case, an operator could inspect the effluent by taking a sample from the effluent tap at the main building and testing it for pH, D.O., and Ch residual and even do a microscopic evaluation of the effluent discharge. If there is sufficient microbiological life there is no indication that the plant process is toxic. This with a test for residual chlorine in the effluent and the dissolved oxygen going out in the effluent would be all that is needed to determine if it was any type of causal plant toxicity that killed the fish. These three measures would be more than logical to prove effluent toxicity without the need to spend \$3,000 on another WET test and possibly another \$3,000 after that. The EPA has not cited a single case where this has happened in NH in the Fact Sheet. Derry requests that the second bullet be stricken from the final permit and language to review effluent micro-life, and check effluent residual chlorine, pH and D.O. is more expedient and of no actual cost to the WWTP with results within an hour of the event.

The third bullet calls for a toxicity test if there is an oily sheen on the surface of the water in the vicinity of the outfall. Again, an examination of the plant effluent would easily determine if the cause of the oily sheen is coming from the WWTP. These actions are immediate and visually verifiable rather than the long waiting period between costly toxicity testing. The proposed action is a poor allocation of \$3,000 from plant resources and if the WWTP investigation demonstrates no oils from the effluent sample faucet then the NHDES oil spill bureau should be immediately called for their assistance. For this reason, Derry requests that the third bullet also be stricken from the final permit.

Response 46

See Response 16.

I. Comments from Peter Kulbacki, P.E., Director of Public Works, Town of Hanover, on February 7, 2025.

Comment 47

Effluent pH Range Limit

The Draft NH MGP for the Town of Hanover includes a Effluent pH Range of 6.5 to 8.5 S.U., which is revised from the previous permit range of 6.0 to 8.0 S.U.

Response to EPA

The Town requests that the Effluent pH Range be revised to 6.0 to 8.0 S.U., per the previously submitted site-specific study submitted to the NHDES on April 5, 2013, approved by the NHDES, and as accepted by the EPA for the previous 2015 individual NPDES permit NH0100099.

If the EPA does not revise the effluent pH Range as requested and previously permitted, the Town intends to resubmit a site specific study to the NHDES, receive approval from NHDES for limits of 6.0 - 8.0 s.u., and make a written request for the revised range to the EPA.

Response 47

See Response 9.

Once the Permittee completes this process, the pH limit may be adjusted if justified by the study.

Comment 48

New Total Recoverable Aluminum Limit

The Draft NH MGP for the Town of Hanover includes an effluent total recoverable aluminum average monthly discharge limit of 87 ug/l (ppb). This discharge limit is equivalent to the freshwater chronic criteria established in NH Env-WQ 1703.21 for acid soluble aluminum of 87 ppb.

In 2018, the EPA updated its national recommended ambient water quality criteria for acute and chronic aluminum aquatic life exposure in fresh water to consider the bioavailability of aluminum based on receiving water aquatic system chemistry¹. This new EPA guidance recommended the use of Multiple Linear Regression (MLR) models to derive key statistics and issued an Aluminum Criteria Calculator that uses water chemistry parameters (pH, DOC, and total hardness data) as inputs to calculate instantaneous aluminum criteria, which will vary by site. Example calculations provided by the EPA for a range of pH, hardness, and DOC values typical in New Hampshire freshwater systems show the NH's current acid soluble aluminum criteria is generally more stringent than the current chronic criterion². More specifically, the MassDEP³ used this approach to calculate aluminum criteria for 15 river basins and coastal drainages in Massachusetts, several of which derive or pass through New Hampshire, and in all

cases, the chronic criteria calculated using EPA's MLR model was considerably higher than NH's current criteria (87 ppb). In August 2024, NHDES issued draft changes to Env-WQ 1703.22(s) that allows for the determination of total aluminum considering waterbody specific pH, DOC, and hardness using EPA procedures¹ with a defined approach following its Draft Aluminum Criteria Implementation in NPDES Permitting⁴.

Response to EPA

The Town requests that the Effluent Total Recoverable Aluminum be removed from the NPDES permit, as had been done for the previous 2015 individual NPDES permit NH0100099. The median ambient Total Recoverable Aluminum upstream concentration is already higher than the chronic aluminum criterion.

Annual ambient testing data for the Connecticut River from 2019-2023 reflect that ambient aluminum ranged from 44-330 ppb with a median concentration of 111.5 ppb and 50% of the ambient samples (2 occurrences) for aluminum exceeded 87 ppb.

In reviewing the 2015 NPDES permit, annual testing data for the Connecticut River from 2008-2013 reflect that ambient aluminum ranged from 50-1,600 ppb and several of the ambient samples for aluminum exceeded 87 ppb. Ultimately, EPA removed some of the ambient river sampling data (assumed outliers) from the analysis and then removed the proposed limit of 87 ppb and revised aluminum to report only.

If the EPA does not remove the Effluent Total Recoverable Aluminum limit as requested and as previously permitted, the Town intends to perform a site specific study for submittal to the NHDES, receive approval from NHDES for higher limits, and make a written request for the revised range to the EPA.

The Town believes the final authorization should contain updated language to reflect an opportunity to calculate site specific aluminum criteria specifically applicable to the WRF's current operational processes. The NHDES has not formally approved changes to Env-WQ 1703.22, and these changes will need to be formally approved by EPA. However, upon EPA's approval of the updated draft NH Water Quality Standards (hopefully prior to the issuance of this final authorization), this NPDES permit should be revised to reflect the scientifically-based new criteria. Anti-backsliding should not prevent the implementation of a new aluminum limit because it will be based on new scientific information developed by the EPA.

¹ EPA (2018). Final Aquatic Life Ambient Water Quality Criteria for Aluminum 2018. EPA-822-R-18-001.

² EPA (2017). Draft Aquatic Life Ambient Water Quality Criteria for Aluminum. EPA-822-P-17-001.

³ MassDEP (2019). MassDEP Presentation on proposed changes to Aluminum and Copper Criteria, February 2019. <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/201902-madeep-314cmr4-pres.pdf>

⁴ NHDES (2024). DRAFT - Aluminum Criteria Implementation in NPDES Permitting. October 17, 2024. DRAFT R-WD-24-19.

Response 48

EPA acknowledges that NH has proposed updated aluminum criteria which may be approved in the near future, and that these proposed criteria allow for the collection of

pH, DOC and hardness to determine a site-dependent criteria. However, the proposed NHDES implementation procedures for these criteria indicates that without adequate pH, DOC and hardness data (as in this case) the default chronic criterion of 87 µg/L should continue to be applied until adequate data are available in the future. Given that the necessary data is not available at this time, the proposed limit in the Draft General Permit would be unchanged even if the updated criteria were already approved. Therefore, the aluminum limit is maintained in the Final General Permit.

The comment notes that default site-dependent criteria for 15 river basins and coastal drainages calculated in Massachusetts were all higher than 87 µg/L. While it is too early to tell whether receiving waters in NH will have the same result, EPA notes that the hardness is generally lower in NH than in MA which is likely to result in more stringent criteria in NH than in MA.

In any case, EPA notes that the Permittee is required to collect the data that will allow for site-dependent criteria in the next permit reissuance at the same time as the quarterly WET tests. Alternately, the Permittee may choose to expedite the data collection process and collect all the necessary data within 1 year (as described in the NHDES implementation procedures) and request a permit modification at that time. EPA notes that some permittees receiving a new aluminum limit under this General Permit also have received a 2-year compliance schedule (if their recent data indicate that they will not likely be in immediate compliance with the new limit). These 2-year compliance schedules may allow for 1-year of data collection, calculation of a site-dependent limit, and a subsequent permit modification to occur before the limit becomes effective. In that case, anti-backsliding regulations would not apply because the limit would not yet be effective.

However, even if the limit does become effective, EPA would consider the pH, DOC and hardness data to be “new information” (given that no such data is available at this time) which would qualify as an anti-backsliding exception and allow for potential relaxation of the limit (if justified by the data). See CWA 402(o)(2)(B)(i).

Comment 49

New PFAS and Adsorbable Organic Fluorine Monitoring Requirements – Frequency and Cost

The Draft NH Medium WWTF General Permit requires that facilities monitor PFAS analytes and adsorbable organic fluorine in influent, effluent, and sludge on a quarterly basis during the permit period. In Part II.E.4, EPA extends PFAS analyte monitoring requirements on an annual basis to industrial users that fall into one of 10 or more user types, with the requirement of reporting for each industrial user placed on the facility.

Response to EPA

The PFAS monitoring requirements in this permit are excessively burdensome, especially compared to the Small WWTF General Permits issued in Massachusetts and New Hampshire in 2021 and the Medium WWTF General Permit issued in Massachusetts in 2022. Facilities in MA and NH that discharge <1 MGD covered under the Small WWTF General Permit are only required

to monitor for six PFAS analytes in influent, effluent, and sludge and this monitoring is required half as frequently (2/year) as the proposed NH Medium General Permit (4/year). Medium WWTF General Permit facilities in MA are required to monitor for 40 PFAS analytes in influent, effluent, and sludge using method 1633 on a similar schedule (1/Quarter), but are not required to test for adsorbable organic fluorine which is a significant addition to this already burdensome requirement.

The new PFAS testing requirements at Hanover represent an added analytical cost of approximately \$10,000 annually. The NH Medium Permit requirements therefore represent the greatest frequency and highest cost burden to date in the region for PFAS testing, with no foreseeable off ramp for reduced monitoring during the permit period. Considering there are 21 WWTFs that fall under this NH MGP where quarterly sampling of the influent, effluent, and sludge will be required, the state will generate 189 datapoints annually for PFAS Analytes across the state, and another 168 data points annually for AOF in the influent and effluent at these facilities. In addition, industrial users falling into PFAS use categories will also be sampled annually for PFAS Analytes, representing hundreds of more datapoints annually.

While we understand data collection is needed at WWTFs to understand PFAS sourcing and fate in communities, we request that the extent of monitoring be capped at 2 years during the permit period. A 2-year monitoring cap will generate over 700 PFAS related datapoints in NH medium facilities and hundreds of other datapoints from industrial users in these sewersheds for use by EPA in understanding geographic and temporal fluctuations of PFAS. A 2-year monitoring cap would ease the financial burden, sampling effort, and reporting burden resulting from this requirement. If during this monitoring period, a significant source of PFAS was identified, the Town would coordinate with EPA and NHDES for additional sampling beyond the finalized PFAS monitoring period.

Response 49

EPA acknowledges that the PFAS and AOF monitoring requirements have changed over recent years based primarily on the development of Methods 1633 and 1621 over this time. Permits for WWTFs above 1 MGD in MA and NH that have been issued more recently include the same requirements as those in the Draft General Permit.

The comment suggested that EPA incorporate an off ramp to reduce or remove PFAS sampling if initial results are below a certain level. Given that limited PFAS data for WWTFs are available and that this is a new monitoring requirement for most of the facilities, EPA finds that the quarterly monitoring proposed in the Draft General Permit is necessary for the full permit term and EPA does not consider it appropriate to provide any off ramps within this initial permit term. However, EPA will evaluate all available data in the next permit reissuance and may reduce PFAS monitoring for some or all of the facilities depending on updated information and any water quality criteria that may be in effect at that time.

See Response 6.

Comment 50

New PFAS and Adsorbable Organic Fluorine Monitoring Requirements – Analytical Methods

In December 2024, the EPA posted a methodological revision to Method 1633 for Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS, which is now entitled Method 1633, Revision A (1633A). This follows five previous revisions of Method 1633 over a 3.5 year period, including a multi-lab validation. The release of this revised analytical method occurred after the EPA posted the notice of availability of the Draft New Hampshire Medium Wastewater Treatment Facility General Permit (November 13, 2024). The EPA states in this NH Draft Medium Permit: “Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633.” The EPA further states on its web site (CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances (PFAS) | US EPA): “While the method [Method 1633A] is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking, the EPA recommends it now for use in individual permits.” Similarly, Method 1621 for Adsorbable Organic Fluorine is not nationally required for CWA compliance but recommended for use in individual permits.

Response to EPA

The New Hampshire Environmental Laboratory Accreditation Program (NHELAP) provides primary and secondary accreditation to environmental laboratories located within and outside the state to ensure sufficiently accurate, precise and consistent results of analyses. Although both EPA Method 1633A and 1621 are recommended for use in individual CWA permits, both have undergone significant revision and validation over a short period. Method 1633A and 1621 were both proposed for approval at 40 CFR Part 136.3 in December 2024, but their approval remains pending. Currently, there are no labs accredited for Method 1633A and 1621 through the NHELAP. Only 7 labs are accredited through the NHELAP for Method 1633, all of whom are located outside New Hampshire.

Analytical laboratories serving New Hampshire POTWs already have extended turn-around times for PFAS analyses. The volume of samples to be generated through the PFAS monitoring requirements in this permit would place additional pressure on an already constrained commercial laboratory network. These laboratories serve numerous states, and this monitoring requirement would add thousands of samples per year from NH POTW and their industrial users. This will undoubtedly result in: (a) extended hold times, which reduces data quality and reliability, and (b) long turn-around times for data, which impacts data reporting requirements at these facilities. We request a revision to the PFAS monitoring requirements to place monitoring on hold until (a) Method 1633A and 1621 are promulgated in 40 CFR Part 136, Guidelines for Establishing Test Procedures for the Analysis of Pollutants, and (b) the NHELAP has the opportunity to assess and accredit laboratories for these two EPA methods for state water quality monitoring purposes.

Response 50

Regarding Method 1633, see Response 11.

Regarding lab availability, EPA notes that these monitoring requirements do not take effect until “the first full calendar quarter following six months after the effective date of the authorization.” EPA acknowledges that there may be a transition period where an increased number of local labs are able to perform the method. In fact, over the previous years, EPA has included similar monitoring requirements in approximately 150 POTW permits in MA and NH and laboratories have scaled up their capacity to perform these tests. In any case, EPA expects any lab availability issues that may occur to be temporary as more labs become accredited with this new analytical method as more facilities are required to conduct this monitoring.

Regarding extended turn-around times, EPA notes that this should not result in any challenges to timely reporting given that the monitoring can take place early in a given quarter and the results may be submitted at any time before the 15th of the month following the end of the quarter. For example, sampling during the third calendar quarter can be done as early as July and results are not due until October 15th.

Comment 51

Adsorbable Organic Fluorine

Row 5 of the Influent Characteristic table included in II.A.1 incorrectly references footnote 14.

Response to EPA

Please remove the inapplicable footnote.

Response 51

EPA has corrected the typographical error referencing footnote 14 in all draft authorizations.

Comment 52

New Pollutant Scan Monitoring Requirements – Frequency and Cost

The permit would require the Town of Hanover to conduct a Pollutant Scan for analytes listed in Attachment I for effluent and ambient samples on an annual basis during the permit period. It further requires in Part II.I that Hanover “Perform three pollutant scans for the pollutants listed in Attachment I, using a representative composite sample once per quarter in the final three full calendar quarters of the 5-year permit term.” Assuming Part II.I refers to effluent samples, this results in a minimum of 7 effluent pollutant scans and 5 ambient pollutant scans (12 total samples) during the 5-year permit cycle. The analytes defined within a pollutant scan are listed in Attachment I and represent a per sample cost of \$850 to \$1,100 for all analytes depending on the analytical lab used.

Response to EPA

The extended pollutant scan requirement defined in this permit is not consistent with pollutant scan requirements for Small and Medium WWTF General Permits issues in Massachusetts and New Hampshire in 2022 and 2023. Facilities in MA and NH that discharge <1 MGD are not required to scan for the pollutants listed in Attachment I. Medium WWTF in MA are only

required to conduct three pollutant scans on effluent once per quarter in the final three full calendar quarters of the 5-year permit term.

- What is the purpose of an annual pollutant scan in effluent, especially in situations where no new industrial users have been added to the Town's sewershed?
- Why is the Town of Hanover WRF required to test for pollutants in ambient water, when the facility is not responsible for background pollutants in the receiving water body?

The new pollutant scan requirement represents an added \$12,000 in additional monitoring costs over the permit period for the Town. It also represents an additional \$2,000 per year in monitoring beyond what medium-sized facilities in MA are required to collect. WWTFs are not responsible for ambient pollutants, and effluent monitoring will be conducted at the end of the permit cycle, therefore annual pollutant scans in both effluent and ambient are not needed to continue to meet water quality requirements.

Based on these concerns, the Town requests a revision to remove the requirement for the annual pollutant scan in both effluent and ambient water, a modification which would make NH WWTFs consistent with MA WWTFs of similar size from a monitoring standpoint.

Response 52

Regarding Part II.I.7, see Response 92.

Regarding the purpose of the pollutant scans, see Response 10.

Regarding cost, see Response 1.

EPA agrees that these pollutant scan requirements are new and were not included in the other previously issued General Permits referenced in the comment. This change is due to the recent Supreme Court decision in *City and County of San Francisco v. EPA*, 145 S.Ct. 704 (2025), which addressed "end-result" permit requirements. See Response 5. EPA did not include any provisions which may be considered "end-result" requirements in this General Permit but instead included these pollutant scans (among other things) to ensure the permit remains fully protective of water quality standards. EPA acknowledges that the new effluent limitations and monitoring requirements that were included in this General Permit result in additional costs to the permittees but finds them necessary to ensure the permit continues to be protective of water quality standards even without "end-result" requirements.

Comment 53

Whole Effluent Toxicity

EPA is requiring the Town conduct LC50 and C-NOEC testing. In Part II.A.1, note 18, EPA states that "if the Permittee identifies or is provided notice of a sudden and significant death of large numbers of fish and/or shellfish in the vicinity of the discharge, the Permittee shall follow the

procedures described in Part II.H.5". In Part II.H.5.a, similar language is found defining requirements for Accelerated WET Testing.

Response to EPA

The Town requests that EPA define "sudden", "significant death", and "large numbers" in the context of this requirement.

Response 53

EPA clarifies to define "sudden and significant death of large numbers of fish and/or shellfish" to mean an unusual occurrence resulting in many dead fish and/or shellfish. Given that this is a General Permit covering a variety of unique WWTF discharges and unique receiving waters, EPA intentionally leaves room for the discretion of the Permittee to determine whether an observation meets this threshold.

Comment 54

Aesthetics

EPA is requiring in Part II.A that facilities conduct, monthly, a "visual inspection of the receiving water in the vicinity of the outfall and report any changes that may be caused by the discharge" related to odor, color, turbidity, floating materials, settleable solids, and films/sheens. EPA is also requiring facilities to report complaints of taste/odor and remedial actions to address complaints. Reporting for inspections and complaints would occur at the end of each calendar year.

Response to EPA

- What is the purpose of this aesthetic monitoring?
- How will the information be used by EPA, especially considering it is submitted on an annual basis?
- What standard methods would facilities use, and how would WWTF staff be consistently trained to inspect and describe these parameters?

Through this permit requirement, the EPA has placed an added, qualitative policing requirement on the Town of Hanover. Hanover WRF operators closely monitor effluent water quality for the parameters listed in this requirement. However, the Town has no control of receiving water quality, and requiring staff the added responsibility of policing water quality in the vicinity of the discharge would open the Town up to litigation to changes in water quality that are beyond the WRF's control. In addition, because visual observations are qualitative and EPA cites no standard protocols or methods for this monitoring, inspection quality would vary with time and staff.

The end of outfall for the WRF is 800 feet from the shoreline of the Connecticut River and submerged at a 15-20 foot depth. The river is often quite turbulent and can experience significant flow at times, with the outfall not visible from the surface.

Monthly monitoring poses an unnecessary safety hazard for Town staff as the outfall is within the influence area of the Wilder Dam that spans the entirety of the Connecticut River slightly downstream. The River poses hazards which restrict navigation during storm events, spring time

high flows, and during winter months as the area of the outfall is subject to ice formation and ice flows.

Monthly monitoring will require significant additional capital investment for a boat, boat launch, and additional permitting for a boat dock.

Based on these concerns, the Town requests a revision to remove the aesthetic monitoring requirement, which would make the permit requirements consistent with smaller NH facilities and MA facilities of similar size.

Response 54

Regarding the purpose of the aesthetics monitoring, as noted in the Fact Sheet at 39-40 this requirement is to monitoring the outfall location to verify that the NH surface water quality standards listed on page 39 are being protected.

Regarding how EPA intends to use this information, EPA clarifies that EPA will review these annual submissions and may reopen or reissue the permit with more stringent requirements if these observations indicate ongoing water quality standard violations.

Regarding standard methods, EPA acknowledges that these visual observations are subject to limited variability based on staff. However, EPA intentionally leaves room for the discretion of the Permittee to make these observations. If the Permittee is concerned about maintaining consistency among various staff, EPA suggests developing internal guidelines or training to improve consistency in observations

Regarding the concern over policing the river and potential litigation, EPA clarifies that this requirement is a monitoring requirement and not an effluent limitation. Any observations (even those showing water quality standard violations) are not directly enforceable under this General Permit unless EPA were to reopen or reissue the permit with more stringent requirements, as discussed above.

Regarding the outfall location and safety concerns, EPA understands the concerns with physical access to the vicinity of the outfall, especially during storm events or freezing conditions. EPA suggests making these observations from the shore (perhaps with the assistance of binoculars) rather than capital investment in a boat.

Comment 55

Adaptation Planning

The NH Medium General Permit Part II.C.1. requires Adaptation Planning be developed by the permittee and co-permittees. This requirement appears to impose an undue burden on the Town of Hanover. The Adaptation Plan is quite comprehensive and includes three primary components. Each has a mandated timeline and requires significant resources. Identifying critical assets, assessing adaptive measures, and preparing an implementation and maintenance schedule within the specified timeframes can be a major demand on permittees and co-permittees with limited staff and budget.

Response to EPA

The Adaptation Plan does not appear to include provisions for funding or financial support for permittees. Undertaking vulnerability assessments, adaptive measures assessments, and the subsequent implementation and maintenance schedules would likely require considerable financial investments. Limited federal or state funding will lead many permittees and co-permittees to consider this an unfunded mandate. As more permittees and co-permittees receive new permits, there is a need for a program to fund all components of the Adaptation Plan.

Current federal and state funding requires the permittees and co-permittees to apply for and secure a loan or grant award, as well as obtain borrowing authorization before they can complete eligible portions of the Plan within the mandated timeline. Based on the size and scope of the Adaptation Plan outlined in the permit, the mandated timeline is not sufficient. The rigid timelines for each component of the Adaptation Plan, even when Part II.C.1.b. is considered, may not fully address the variations in capacity and complexity of systems managed by permittees and co-permittees. Allowing flexibility would be beneficial and enable permittees and co-permittees to adjust the process to meet their specific needs.

Component 3: Implementation and Maintenance Schedule requires permittees and co-permittees to submit a proposed schedule along with details on funding sources for adaptive measures. This could result in a long-term financial burden, particularly if the identified adaptive measures are expensive or if funding sources are not readily available. If funding is challenging, other asset management priorities may need to be deferred, which could exacerbate existing, known issues.

We suggest the EPA consider adjustments to these requirements to address these concerns to best ensure the Town of Hanover will be able to fully comply with the permit and NHDES provide a state-supported funding mechanism to partially or fully support efforts associated with meeting the Adaptation Planning requirements.

Component 1: Identification of Vulnerable Critical Assets requires permittees and co-permittees to develop “future conditions” to determine which assets would be impacted by current and future flood elevations. The identification of current flood elevations is clear as FEMA flood mapping is available; however, insufficient guidance and protocols are being presented for development of future flood conditions and elevations. Footnote 7 lists “major storm and flood events using federal, state, and local data, where available.” Without providing consistent federal and state resources for this effort, undue burden is placed on the municipalities to understand and estimate future flood impacts resulting from climate change and other shifts in global weather.

We suggest the EPA consider providing specific protocols for development of short term (10-25 years forward-looking) and long term (25-70 years forward-looking) flooding projections.

Response 55

See Response 2.

Comment 56

Standard Conditions

In Part VII.A.1.a of the Standard Conditions, EPA states that "Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement."

Response to EPA

This is an exceedingly far-reaching statement that would essentially require facilities to comply with CWA changes, even if those standards are not incorporated into this NH Medium General Permit. Such language sets up an expectation that facilities will need to anticipate and plan for future (unknown) federal or state water quality standards, sludge standards, or other permit limits. It also negates the long precedent of NPDES permit writers applying site specific criteria and facility specific compliance plans for POTWs to meet new water quality regulations. This language is especially concerning in the context of EPA's release of Draft Ambient Water Quality Criteria for the Protection of Human Health⁵ and the Draft Sewage Sludge Risk Assessment⁶.

We request EPA provide an exception to these conditions in the event that EPA or NHDES set surface water quality standards or sludge/biosolids quality standards for PFAS or other emerging chemical/constituent of concern. The ability to meet water quality or sludge/biosolids standards for PFAS could require considerable planning by the Town, therefore having the opportunity to respond to limits within the NPDES permitting process is essential.

⁵ EPA, 2024. Draft National Recommended Ambient Water Quality Criteria for the Protection of Human Health for Perfluorooctanoic Acid, Perfluorooctane Sulfonic Acid, and Perfluorobutane Sulfonic Acid, Federal Register, 2024-30637 (89 FR 105041).

⁶ EPA, 2025. Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) CASRN 335-67-1 and Perfluorooctane Sulfonic Acid (PFOS) CASRN 1763-23-1. EPA-820P25001.

Response 56

The condition at issue is a standard permit condition which EPA regulations require be included in all permits. See 40 CFR § 122.41. EPA must ensure that permits comply with both the CWA and implementing regulations. Additionally, this provision reiterates the sewage sludge requirements to which the permittee is already required to comply with pursuant to EPA's sewage sludge regulations at 40 CFR Part 503. See *also* CWA § 405(d) (requiring EPA's development of sewage sludge regulations). In other words, even if EPA had the discretion to make the permit change requested, which it does not, the permittee would nevertheless be legally obligated to comply with the sewage sludge provisions pursuant to 40 CFR Part 503.

J. Comments from Earle M. Chesley, P.E., City of Concord, on February 7, 2025.

Comment 57

New PFAS and Adsorbable Organic Fluorine Monitoring Requirements - Frequency and Cost

The Draft NH Medium WWTF General Permit requires that facilities monitor PFAS analytes and adsorbable organic fluorine in influent, effluent, and sludge on a quarterly basis during the permit period. In Part 11.E.4, EPA extends PFAS analyte monitoring requirements on an annual basis to industrial users that fall into one of 10 or more user types, with the requirement of reporting for each industrial user placed on the facility.

Response to EPA

The PFAS monitoring requirements in this permit are excessively burdensome, especially compared to the Small WWTF General Permits issued in Massachusetts and New Hampshire in 2021 and the Medium WWTF General Permit issued in Massachusetts in 2022. Facilities in MA and NH that discharge <1 MGD covered under the Small WWTF General Permit are only required to monitor for six PFAS analytes in influent, effluent, and sludge and this monitoring is required half as frequently (2/year) as the proposed NH Medium General Permit (4/year). Medium WWTF General Permit facilities in MA are required to monitor for 40 PFAS analytes in influent, effluent, and sludge using method 1633 on a similar schedule (1/Quarter), but are not required to test for adsorbable organic fluorine which is a significant addition to this already burdensome requirement.

The new PFAS testing requirements at the Penacook WWTF represent an added analytical cost of approximately \$10,000 annually. The NH Medium Permit requirements therefore represent the greatest frequency and highest cost burden to date in the region for PFAS testing, with no foreseeable off ramp for reduced monitoring during the permit period. Considering there are 21 WWTFs that fall under this NH MGP where quarterly sampling of the influent, effluent, and sludge will be required, the state will generate 189 datapoints annually for PFAS Analytes across the state, and another 168 data points annually for AOF in the influent and effluent at these facilities. In addition, industrial users falling into PFAS use categories will also be sampled annually for PFAS Analytes, representing hundreds of more datapoints annually.

While we understand data collection is needed at WWTFs to understand PFAS sourcing and fate in our communities, we request that the extent of monitoring be capped at 2 years during the permit period. A 2-year monitoring cap will generate over 700 PFAS related datapoints in NH medium facilities and hundreds of other datapoints from industrial users in these sewersheds for use by EPA in understanding geographic and temporal fluctuations of PFAS.

A 2-year monitoring cap would ease the financial burden, sampling effort, and reporting burden resulting from this requirement. If during this monitoring period, a significant source of PFAS was identified, the City would coordinate with EPA and NHDES for additional sampling beyond the finalized PFAS monitoring period.

The City request that PF AS monitoring of sludge be removed from the permit since sludge is manually conveyed to the Concord, NH Hall Street WWTF (NH0100901) and PFAS analysis is already included as part of the Hall Street WWTF sludge PFAS monitoring data.

Response 57

See Response 49.

Comment 58

New PFAS and Adsorbable Organic Fluorine Monitoring Requirements - Analytical Methods

In December 2024, the EPA posted a methodological revision to Method 1633 for Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS, which is now entitled Method 1633, Revision A (1633A). This follows five previous revisions of Method 1633 over a 3.5 year period, including a multi-lab validation. The release of this revised analytical method occurred after the EPA posted the notice of availability of the Draft New Hampshire Medium Wastewater Treatment Facility General Permit (November 13, 2024). The EPA states in this NH Draft Medium Permit: "Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633." The EPA further states on its web site (CWA Analytical Methods for Per-and Polyfluorinated Alkyl Substances (PF AS) | US EPA): "While the method [Method 1633A] is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking, the EPA recommends it now for use in individual permits." Similarly, Method 1621 for Adsorbable Organic Fluorine is not nationally required for CWA compliance but recommended for use in individual permits.

Response to EPA

The New Hampshire Environmental Laboratory Accreditation Program (NHELAP) provides primary and secondary accreditation to environmental laboratories located within and outside the state to ensure sufficiently accurate, precise and consistent results of analyses. Although both EPA Method 1633A and 1621 are recommended for use in individual CWA permits, both have undergone significant revision and validation over a short period. Method 1633A and 1621 were both proposed for approval at 40 CFR Part 136.3 in December 2024, but their approval remains pending. Currently, there are no labs accredited for Method 1633A and 1621 through the NHELAP. Only 7 labs are accredited through the NHELAP for Method 1633, all of whom are located outside New Hampshire.

Analytical laboratories serving New Hampshire POTWs already have extended turn-around times for PFAS analyses. The volume of samples to be generated through the PF AS monitoring requirements in this permit would place additional pressure on an already constrained commercial laboratory network. These laboratories serve numerous states, and this monitoring requirement would add thousands of samples per year from NH POTW and their industrial users. This will undoubtedly result in: (a) extended hold times, which reduces data quality and reliability, and (b) long turn-around times for data, which impacts data reporting requirements at these facilities. We request a revision to the PFAS monitoring requirements to place monitoring on hold until (a) Method 1633A and 1621 are promulgated in 40 CFR Part 136, Guidelines for Establishing Test Procedures for the Analysis of Pollutants, and (b) the NHELAP

has the opportunity to assess and accredit laboratories for these two EPA methods for state water quality monitoring purposes.

Response 58

See Response 50.

Comment 59

Adsorbable Organic Fluorine

Row 5 of the Influent Characteristic table included in II.A. I incorrectly references footnote 14.

Response to EPA

Please remove the inapplicable footnote.

Response 59

EPA has corrected the typographical error referencing footnote 14 in all draft authorizations.

Comment 60

New Pollutant Scan Monitoring Requirements - Frequency and Cost

The permit would require the City of Concord to conduct a Pollutant Scan for analytes listed in Attachment I for effluent and ambient samples on an annual basis during the permit period. It further requires in Part II.I that Concord "Perform three pollutant scans for the pollutants listed in Attachment I, using a representative composite sample once per quarter in the final three full calendar quarters of the 5-year permit term." Assuming Part II.I refers to effluent samples, this results in a minimum of 7 effluent pollutant scans and 5 ambient pollutant scans (12 total samples) during the 5-year permit cycle. The analytes defined within a pollutant scan are listed in Attachment I and represent a per sample cost of \$850 to \$1,100 for all analytes depending on the analytical lab used.

Response to EPA

The extended pollutant scan requirement defined in this permit is not consistent with pollutant scan requirements for Small and Medium WWTF General Permits issued in Massachusetts and New Hampshire in 2022 and 2023. Facilities in MA and NH that discharge <1 MGD are not required to scan for the pollutants listed in Attachment I. Medium WWTF in MA are only required to conduct three pollutant scans on effluent once per quarter in the final three full calendar quarters of the 5-year permit term.

- What is the purpose of an annual pollutant scan in effluent, especially in situations where no new industrial users have been added to the City's sewershed?
- Why is the Penacook WWTF required to test for pollutants in ambient water, when the facility is not responsible for background pollutants in the receiving water body?

The new pollutant scan requirement represents an added \$12,000 in additional monitoring costs over the permit period for the City. It also represents an additional \$2,000 per year in

monitoring beyond what medium-sized facilities in MA are required to collect. WWTFs are not responsible for ambient pollutants, and effluent monitoring will be conducted at the end of the permit cycle, therefore annual pollutant scans in both effluent and ambient are not needed to continue to meet water quality requirements.

Based on these concerns, the City requests a revision to remove the requirement for the annual pollutant scan in both effluent and ambient water, a modification which would make NH WWTFs consistent with MA WWTFs of similar size from a monitoring standpoint.

Response 60

See Response 52.

Comment 61

Whole Effluent Toxicity

EPA is requiring the City conduct LC50 and C-NOEC testing. In Part II.A.1, note 18, EPA states that "if the Permittee identifies or is provided notice of a sudden and significant death of large numbers of fish and/or shellfish in the vicinity of the discharge, the Permittee shall follow the procedures described in Part II.H.5". In Part II.H.5.a, similar language is found defining requirements for Accelerated WET Testing.

Response to EPA

The City requests that EPA define "sudden", "significant death", and "large numbers" in the context of this requirement.

Response 61

See Response 53.

Comment 62

Aesthetics

EPA is requiring in Part II.A that facilities conduct, monthly, a "visual inspection of the receiving water in the vicinity of the outfall and report any changes that may be caused by the discharge" related to odor, color, turbidity, floating materials, settleable solids, and films/sheens. EPA is also requiring facilities to report complaints of taste/odor and remedial actions to address complaints. Reporting for inspections and complaints would occur at the end of each calendar year.

Response to EPA

- What is the purpose of this aesthetic monitoring?
- How will the information be used by EPA, especially considering it is submitted on an annual basis?
- What standard methods would facilities use, and how would WWTF staff be consistently trained to inspect and describe these parameters?

Through this permit requirement, the EPA has placed an added, qualitative policing requirement on the City of Concord. Penacook WWTF operators closely monitor effluent water quality for the

parameters listed in this requirement. However, the City has no control of receiving water quality, and requiring staff the added responsibility of policing water quality in the vicinity of the discharge would open the City up to litigation to changes in water quality that are beyond the WWTF's control. In addition, because visual observations are qualitative and EPA cites no standard protocols or methods for this monitoring, inspection quality would vary with time and staff.

The end of outfall for the Penacook is 350 feet from the shoreline of the Merrimack River and submerged at a 10-15 foot depth. The river is often quite turbulent and can experience significant flow at times, with the outfall not visible from the surface.

Monthly monitoring poses an unnecessary safety hazard for City staff as the River poses hazards which restrict navigation during storm events, spring time high flows, and during winter months as the area of the outfall is subject to ice formation and ice flows.

Monthly monitoring will require significant additional capital investment for a docking system, a boat, a boat launch, and additional permitting for the dock and boat launch.

Based on these concerns, the City requests a revision to remove the aesthetic monitoring requirement, which would make the permit requirements consistent with smaller NH facilities and MA facilities of similar size.

Response 62

See Response 54.

Comment 63

Adaptation Planning

The NH Medium General Permit Part II.C.I. requires Adaptation Planning be developed by the permittee and co-permittees. This requirement appears to impose an undue burden on the City of Concord. The Adaptation Plan is quite comprehensive and includes three primary components. Each has a mandated timeline and requires significant resources. Identifying critical assets, assessing adaptive measures, and preparing an implementation and maintenance schedule within the specified timeframes can be a major demand on permittees and co-permittees with limited staff and budget.

Response to EPA

The Adaptation Plan does not appear to include provisions for funding or financial support for permittees. Undertaking vulnerability assessments, adaptive measures assessments, and the subsequent implementation and maintenance schedules would likely require considerable financial investments. Limited federal or state funding will lead many permittees and co-permittees to consider this an unfunded mandate. As more permittees and co-permittees receive new permits, there is a need for a program to fund all components of the Adaptation Plan.

Current federal and state funding requires the permittees and co-permittees to apply for and secure a loan or grant award, as well as obtain borrowing authorization before they can complete eligible portions of the Plan within the mandated timeline. Based on the size and scope of the Adaptation Plan outlined in the permit, the mandated timeline is not sufficient. The rigid timelines for each component of the Adaptation Plan, even when Part II.C. Lb. is considered, may not fully address the variations in capacity and complexity of systems managed by permittees and co-permittees. Allowing flexibility would be beneficial and enable permittees and co-permittees to adjust the process to meet their specific needs.

Component 1: Identification of Vulnerable Critical Assets requires permittees and co-permittees to develop "future conditions" to determine which assets would be impacted by current and future flood elevations. The identification of current flood elevations is clear as FEMA flood mapping is available; however, insufficient guidance and protocols are being presented for development of future flood conditions and elevations. Footnote 7 lists "major storm and flood events using federal, state, and local data, where available."

Without providing consistent federal and state resources for this effort, undue burden is placed on the municipalities to understand and estimate future flood impacts resulting from climate change and other shifts in global weather.

We suggest the EPA consider providing specific protocols for development of short term (10-25 years forward-looking) and long term (25-70 years forward-looking) flooding projections.

Component 3: Implementation and Maintenance Schedule requires permittees and co-permittees to submit a proposed schedule along with details on funding sources for adaptive measures. This could result in a long-term financial burden, particularly if the identified adaptive measures are expensive or if funding sources are not readily available. If funding is challenging, other asset management priorities may need to be deferred, which could exacerbate existing, known issues.

We suggest the EPA consider adjustments to these requirements to address these concerns to best ensure the City of Concord will be able to fully comply with the permit and NHDES provide a state-supported funding mechanism to partially or fully support efforts associated with meeting the Adaptation Planning requirements.

Response 63

See Response 2.

Comment 64

Industrial Users - PFAS Analytes

II.E.4 of the Draft Permit requires the City conduct annual sampling of industrial discharges or requires industrial users falling into ten defined categories to sample their discharge for PFAS Analytes using method 1633. Data must be reported annually in the March discharge report.

This may require the City to change or update industrial permit monitoring requirements and will result in an additional cost to industrial users of at least \$425 per sample.

Response to EPA

Penacook WWTF has several industrial dischargers defined in paragraph II.E.4 of the Draft Permit. It will be necessary for Concord to update its industrial user permit fee in order to cover the cost for PFAS analysis. Additionally, because wastewater sampling for PFAS requires specific protocols and training, it will also be necessary for Concord to shift staff time and acquire appropriate equipment to complete the required sampling. This programmatic aspect is another burdensome requirement of PFAS monitoring. Furthermore, the EPA intends to conduct a national study on industrial wastewater discharges of PFAS to WWTFs at facilities accepting > 10 million gallons per day and a service population >50,000¹. The national study will select 2,000 industrial users from 200-300 WWTFs for PFAS sampling. The study is currently going through the information collection request approval process and is expected to begin in 2025.

Since the EPA is moving forward with collecting this information at a national level through a coordinated sampling effort that targets 10 users within each POTW sewershed, there is no need for individual communities with smaller flows, like Penacook, to replicate this effort by targeting all industrial users falling into potential PFAS use categories. The City requests the requirement to sample industrial users for PFAS be removed until EPA has completed its national study, which will guide targeted sampling in smaller communities.

The City of Concord requests that EPA make the above mentioned changes to the Permit. The City requests that EPA address and respond to each of its comments, in kind.

Response 64

See Responses 6 and 12.

K. Comments from Alex Gleeson, Director, Department of Public Works, City of Claremont, on February 11, 2025.

Comment 65

General & Standard Conditions

There are 21 wastewater treatment facilities included under this Medium WWTF GP. While individual facilities have unique discharge limits and monitoring requirements, all the facilities will be covered under the same general and standard permit conditions (not including conditions specific to fresh or marine facilities). It is a concern of the City that another community may appeal or challenge a condition that could result in modifications to the City's draft permit.

If another community covered under this Medium WWTF GP appeals a General or Standard Condition, we ask that Claremont's permit be put on hold until the appeal process is finalized.

Response 65

EPA agrees that if a condition of the General Permit is appealed, that condition would be put on hold for all Permittees that have that condition until the appeal process is finalized.

Comment 66

Effluent Limitations and Monitoring Requirements

a. New Dilution Factor

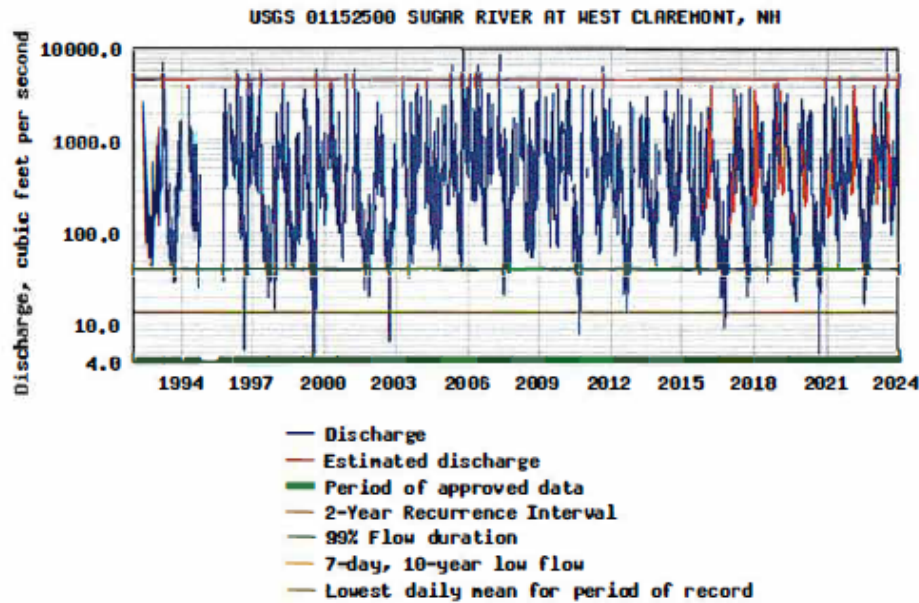
Water quality-based effluent limits are based (in part) on the available dilution derived from the 7Q10 critical low flow in the receiving water at the point of discharge and the design flow of the facility. The 7Q10 flow is calculated using stream gage data either upstream or downstream of the facility. The flow is corrected by adding (if upstream) or subtracting (if downstream) a flow proportional to the basin area for the reach of stream between the gage station and the point of discharge. The flow is also adjusted to account for any major withdrawals or flow additions (e.g., point source discharge or a confluent stream) that occurs between the gage station and the discharge point.

The Dilution factor is calculated as the fraction of the facility design flow to the calculated receiving body 7Q10 critical low flow. A 10% assimilative capacity is reserved as required by Env-Wq 1705.01 by multiplying this fraction by 0.90.

Appendix B in the MGP Fact Sheet Attachment shows that in the City's draft permit, the 7Q10 flow was reduced from that used in past permits which resulted in a considerable reduction in its dilution factor. Claremont's current NPDES permit (NH0101257), authorized in 2016, applied a 7Q10 flow of 37.46 cfs for calculation of the Dilution Factor and other analyte determinations. This 7Q10 flow was determined using a data period of 1930-2001, and resulted in a dilution factor of 6.5. A significantly lower 7Q10 flow of 25.01 cfs and dilution factor of 3.74 were used for the development of the draft permit. According to Appendix B of the MGP Fact Sheet, the 7Q10 value was calculated using data from 1992 to 2023.

The revised 7Q10 flow used by EPA appears to be overly conservative. According to Appendix B of the GMP Fact Sheet Attachments, the 7Q10 flow of 24.98 cfs was obtained using upstream gage information for USGS Gage Basin #01152500 Sugar River at West Claremont, NH for the time period spanning 1992 -2023.

This 7Q10 value is less than the 7Q10 value reported by USGS for this station. Please refer to the Figure below identifying a 7Q10 flow between 30-40 cfs. We request that EPA reevaluate their permit analyses using the USGS published 7Q10 for this gage and time period.



The 7Q10 flow calculation appears to assume that the full design flow of the City's drinking water supply is withdrawn upstream. Claremont primarily uses groundwater as its drinking water source, with supplementation from the Sugar River making up approximately 30% of their raw water source volume. Moreover, the Claremont Water Treatment Pump Station from this surface water source has a design capacity of about 2.6 MGD (4.82 cfs). Assuming any withdrawal beyond this amount from the stream is therefore overly conservative. We request EPA adjust the 7Q10 flow calculation to account for only the portion of flow withdrawn from the receiving water body for the drinking water supply and reevaluate the applicable permit analyses using this adjusted 7Q10 flow.

Response 66

Given that NHDES updated the calculations for the 7Q10 low flows in the development of this General Permit, EPA coordinated with NHDES in responding to this comment. Although it is not entirely clear how the 7Q10 low flow in the comment (and presented in the corresponding figure) was calculated, NHDES reviewed the gage data from the most recent 30-year period of record and confirmed that the 7Q10 flow at the gage was 24.98 cfs. Accounting for an additional estimated 0.03 cfs from the intervening area, between the gage and the Claremont WWTF outfall results in an estimated 7Q10 low flow at the outfall location of 25.01 cfs, as noted in Appendix B of the Fact Sheet. The reduction from 37.46 cfs as calculated in the last individual permit (the 2016 Permit) is primarily due to the change in the period of record of the gage data. As noted in the comment, the period of record in the 2016 Permit went back as far as 1930, whereas the period of record in this General Permit only included the most recent 30 years of flow data. It is both the EPA and NHDES policy to only include the most recent 30 years of data when calculating 7Q10 flows to account for any recent changes in hydrologic conditions.

The comment also suggests that a certain amount of flow was deducted from this 7Q10 low flow value based on upstream withdrawals. NHDES clarifies that NHDES's policy

applies an estimated 7Q10 flow as a downstream flow, meaning it includes the facility's flow, when the water source for the discharge is within the basin upstream of the discharge but downstream of the gage. The "water source" includes all surface water and groundwater drinking water sources that contribute to the flow from the facility. As the water source for Claremont's discharge is not within the basin between the gage and the discharge, NHDES mischaracterized the calculated 7Q10 flow as a downstream value, and it should instead be considered as an upstream value.

Therefore, NHDES recommends applying the 25.01 cfs as an upstream 7Q10 which increases the dilution factor from 3.74 to 4.64.

EPA has updated the 7Q10 accordingly. The resulting changes to Claremont's permit limits are as follows:

- The copper limits changed to 13 µg/L (monthly ave) and 20 µg/L (daily max),
- The ammonia limit (from May to October) changed to 6.4 mg/L (monthly ave),
- The total phosphorus limit (from April to October) changed to 10.6 lb/day,
- The total residual chlorine limits changed to 0.051 mg/L (monthly ave) and 0.088 mg/L (daily max), and
- The C-NOEC toxicity limit changed to 22%.

Comment 67

b. New Aluminum Limit

The Draft MGP requires the City meet new aluminum effluent requirements and lays out a compliance schedule for this requirement. The City understands that it will conduct two years of aluminum monitoring on a twice monthly basis in the effluent. During year one of monitoring, the City will evaluate source reduction opportunities, minor process changes, and treatment optimization that could reduce aluminum levels in the effluent. During year two, the City would implement source reduction and/or process changes and monitor the impact on aluminum effluent levels. Monitoring results and a status report documenting progress toward achieving the aluminum permit limit will be submitted at the end of each year.

The City is concerned that the proposed aluminum discharge limit is based on NHDES freshwater chronic criteria, which is currently being revised using a more scientifically-backed approach. The current standard is very likely to be more stringent than the proposed updated limit calculation. If the more stringent limit goes into effect the EPA would not allow a relaxation of the limit to meet new, site-specific criteria when NH adopts EPA's national aluminum criteria guidance in the future. In other words, once the discharge limit is effective, rescinding this limit would be subject to anti-backsliding and anti-degradation regulations which may prevent any opportunity of the limit ever being removed or modified -even though the limit would be deemed scientifically over-protective by EPA's guidance. EPA has acknowledged in other response to comments with respect to aluminum effluent in Massachusetts NPDES permits "if the limit goes into effect before a permit modification is issued then the limit would be subject to anti-backsliding regulations."

1. Aluminum Rulemaking Status in New Hampshire.

The Draft MGP for the City of Claremont includes an effluent total recoverable aluminum average monthly discharge limit of 87 mg/l (ppb). This discharge limit is equivalent to the freshwater chronic criteria established in NH Env-WQ 1703.21 for acid soluble aluminum of 87 ppb. This chronic criterion is derived from the Ambient Water Quality Criteria for Aluminum - 1988¹ based on the results of toxicity testing of aluminum to select aquatic life. While the criterion was established with the goal of protecting aquatic life and was developed using the best available toxicity testing data at its time, there has been longstanding and significant regulatory controversy regarding the scientific basis for the criterion and its applicability to varying surface water chemistries (specifically pH and hardness). As it lacks consideration of site-specific water chemistry, the criterion fails to appropriately characterize the bioavailability of aluminum.

The 1988 aluminum chronic criterion was superseded in 2018 when the EPA updated its national recommended ambient water quality criteria for acute and chronic aluminum aquatic life exposure in fresh water to consider the bioavailability of aluminum based on receiving water aquatic system chemistry². This new EPA guidance recommended the use of Multiple Linear Regression (MLR) models to derive key statistics and issued an Aluminum Criteria Calculator that uses water chemistry parameters (pH, DOC, and total hardness data) as inputs to calculate instantaneous aluminum criteria unique to the permit site. Example calculations provided by the EPA for a range of pH, hardness, and DOC values typical in New Hampshire freshwater systems show that NH's current acid soluble aluminum criteria is generally more stringent than the current chronic criterion³. More specifically, the MassDEP⁴ used the EPA MLR Aluminum Criteria Calculator to derive aluminum criteria for 15 river basins and coastal drainages in Massachusetts, several of which originate in or pass through New Hampshire. In all cases, the chronic criteria calculated using EPA's MLR model was considerably higher than NH's current criteria (87 ppb).

In August 2024, NHDES issued draft changes to Env-WQ 1703.22(s) that allows for the determination of total aluminum water quality criteria considering waterbody specific pH, DOC, and hardness using EPA procedures with a defined approach following its Draft Aluminum Criteria Implementation in NPDES Permitting⁵. This approach is not without its technical issues, but it represents one step closer to EPA's current national guidance². The NHDES has not yet promulgated changes to Env-WQ 1703.22 to incorporate this updated aluminum guidance into NH water quality standards. Even after these standards are adopted by the state, there will be additional time required for EPA Region 1 to formally approve these revisions. Given that both the MGP and aluminum standard regulatory processes are concurrent, there is a chance that the MGP will be finalized utilizing the current, outdated aluminum standard. This will have significant capital and operational cost impacts which may not provide any additional environmental benefit.

It is the City's expectation that, upon EPA's approval of the updated draft NH Water Quality Standards, this NPDES permit will be revised to reflect the scientifically-based new criteria. Given the extended timeline anticipated for NH DES to adopt EPA's national aluminum criteria calculator, Claremont may be at risk of receiving an overly-protective aluminum limit or be

forced to modify our wastewater process with costly infrastructure upgrades, only to have this limit revised shortly thereafter when the new criteria is officially adopted by NH and EPA. Anti-backsliding should not prevent the implementation of a new aluminum limit because it will be based on new scientific information developed by the EPA utilizing site-specific water quality characteristics.

The City of Claremont is understandably concerned that should the proposed more stringent aluminum discharge limit take effect during the aluminum promulgation process, the EPA would not allow a relaxation or removal of the limit to meet site-specific, scientifically backed aluminum criteria. This has been the recent regulatory approach taken with wastewater facilities in EPA Region 1 (for example, see Fitchburg, MA)⁶.

Given NHDES' progress on adopting the 2018 EPA revised aluminum criteria, the City requests that EPA and NHDES not establish a new limitation using the superseded 1988 standard. The City shares the same goal as EPA and NHDES to protect aquatic life and meet effluent requirements that have been developed based on the best available science and that most accurately quantify the bioavailability of aluminum in site-specific conditions. The overarching goal of environmental regulation should be to balance environmental protection with practicality, ensuring that efforts to reduce pollution are based on real and known risks at specific waterbodies. A one-size-fits-all approach that ignores these factors will result in economic burdens to communities without providing a proportional environmental benefit.

For these reasons, the City requests the 87-ppb limit be removed from the draft permit and be replaced with a narrative requirement that is consistent with the 2018 EPA revised aluminum criteria. A narrative requirement is more appropriate in this application because of the scientific uncertainties surrounding the 1988 criteria and for the reason that it is still environmentally protective. The City requests EPA add the following language as a Special Condition:

"As NHDES is in the process of adopting revised criteria for aluminum, the permittee shall monitor and report total aluminum, pH, DOC, and hardness in the Whole Effluent Toxicity (WET) tests. This monitoring will continue through the term of the permit, until such time that the site-specific numeric standard for aluminum is adopted by the State and approved by EPA. At which time, a reasonable potential analysis for total recoverable aluminum will be conducted to determine if there is potential to cause or contribute to a violation of the newly approved aluminum criteria."

2. Aluminum Compliance Schedule.

Similar to the timing of aluminum limits in this Draft New Hampshire MGP, the Mass DEP was in the process of revising its aluminum criteria and had recently promulgated updated Surface Water Quality Standards to reflect these criteria when the Draft Massachusetts MGP was released in 2021. In contrast to the short compliance schedule stated in the draft NH MGP (that disregards this ongoing rulemaking process), the EPA provided specific language in the Mass MGP Fact Sheet that allowed for an extended aluminum compliance period to reflect: (1) an undefined timeline for the Mass SWQS to go through the EPA review and approval process to be used in NPDES permits, (2) a caveat that Mass WWTFs could apply for a permit modification

prior to the final aluminum effluent going into effect based on the new criteria if the Mass SWQS were approved by EPA, and (3) the opportunity for EPA to relax or remove the aluminum limit if warranted by the new criteria and a reasonable potential analysis without triggering anti-backsliding requirements⁷.

Based on discussion with NHDES staff and the previous timeline for EPA approval of MassDEP SWQS for aluminum, we anticipate the following milestones for updated aluminum criteria in New Hampshire:

- The public comment period for proposed changes to Env-WQ 1700 Surface Water Quality Standards (SWQS), which includes changes to the aluminum criteria, closed on November 22, 2024. A reasonable timeline of 6 months to 1 year for final approval of NH Env-WQ 1700 through New Hampshire Joint Legislative Committee on Administrative Rules (JLCAR) can be expected. This timeline assumes that there are no significant delays or concerns during the JLCAR review and approval process;
- Assuming changes to NH Env-WQ 1700 are approved by JLCAR, we anticipate an additional 6 months to 1 year for review, approval, and use by EPA of revised NH Env-WQ 1700 SWQSs in this NPDES MGP;
- Once approved, NH MGP holders can start the process described in the NHDES Draft - Aluminum Criteria Implementation in NPDES Permitting⁴. Assuming the permittee chooses to fulfill data requirements defined in the Implementations on an accelerated sampling effort, the permittee would need to:
 - Solicit bids and contract with a consulting firm - approximately 3 months.
 - Develop the sampling plan - approximately 2 months.
 - Receive approval from NHDES and EPA on the proposed sampling plan and analysis of the data - approximately 3 months.
 - Once the plan is approved by NH DES and EPA, the permittee will implement the accelerated sampling - approximately 1 or 2 years.
 - The consultant would then use the collected information to calculate the instantaneous criteria values using the NH DES approach⁵ and approved aluminum calculator and compile findings into a report - approximately 4 months.
 - Submit report to NHDES and EPA for review and approval - approximately 6 months.
 - Once site specific criteria were developed, the permittee would submit a revision/addendum to the NPDES permit, which would require review and approval by NHDES and EPA, a process that could take another 6 months to 1 year.

Overall, this process may take 5 years to complete, assuming no unforeseen delays. However, this timeline could be extended further if any setbacks arise. Given the structure of the general permit, there are 5 permittees that will be subject to the same compliance schedule. Potential delays associated with all 5 permittees navigating this process concurrently should be accounted for and considered in establishing an appropriate compliance schedule.

We request EPA include a 5-year schedule of compliance that supports the timeline for NH DES and EPA to promulgate and/or approve the revised aluminum criteria. This also allows time to fulfill the data requirements and to obtain approval for site-specific criteria to be approved.

Further, the final authorization should contain updated language to reflect an opportunity to calculate site specific aluminum criteria based on EPA's final national guidance (2018). Specifically, we request EPA include language in the Aluminum Compliance Schedule to reflect the following approach used in New Hampshire and in Massachusetts during aluminum criteria promulgation:

"If during the compliance period after the effective date of the permit, New Hampshire adopts revised aluminum criteria, then the permittee may request a permit modification, pursuant to 40 C.F.R. § 122.62(a)(3), for a further delay of the effective date of the final aluminum effluent limit. If new criteria are approved by EPA before the effective date of the final aluminum effluent limit, the permittee may apply for a permit modification, pursuant to 40 C.F.R. § 122.62(a)(3), for a longer time to meet the final aluminum effluent limit and/or for revisions to the permit based on whether there is reasonable potential for the facility's aluminum discharge to cause or contribute to a violation of the newly approved aluminum criteria. The final effluent limit of 87 µg/l for aluminum may be modified prior to the end of the compliance schedule if warranted by the new criteria and a reasonable potential analysis and consistent with antidegradation requirements. Such a modification would not trigger anti-backsliding prohibitions, as reflected in CWA 402 § (o) and 40 CFR § 122.44(1)."

¹ EPA (1988). Ambient Water Quality Criteria for Aluminum -1988. EPA 440/5-86-008.

² EPA (2018). Final Aquatic Life Ambient Water Quality Criteria for Aluminum 2018. EPA-822-R-18-001.

³ EPA (2017). Draft Aquatic Life Ambient Water Quality Criteria for Aluminum. EPA-822-P-17-001.

⁴ MassDEP (2019). MassDEP Presentation on proposed changes to Aluminum and Copper Criteria, February 2019. <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/201902-madeep-314cmr4-pres.pdf>

⁵ NH DES (2024). DRAFT - Aluminum Criteria Implementation in NPDES Permitting. October 17, 2024. DRAFT R-WD-24-19

⁶ EPA (2024). Fitchburg Easterly Wastewater Treatment Facility; Final NPDES Permit; MA0100986. <https://www3.epa.gov/region1/npdes/permits/2024/finalma0100986permit-2024.pdf>

⁷ EPA (2021). Fact Sheet and Supplemental Information, Draft National Pollutant Discharge Elimination System (NPDES) Permit to Discharge to Waters of the United States Pursuant to the Clean Water Act (CWA). New England - Region 1, Boston, Massachusetts.

Response 67

Regarding the revised aluminum criteria and anti-backsliding, see Response 48.

Regarding the request for a compliance schedule based on the timing of potential updated regulations (as EPA did in past permits referenced in the comment), EPA has determined that this type of compliance schedule is not appropriate. Federal regulation 40 CFR § 122.47(a)(1) indicates that a compliance schedule shall require compliance "as soon as possible" which does not allow for delay based on future regulatory changes and data collection. As discussed in Response 48, EPA also notes that there is uncertainty regarding whether the future site-dependent criteria would be more stringent or less stringent.

Comment 68

More Stringent Copper Limitation

The EPA has reduced the average monthly total recoverable copper effluent discharge limitation (chronic) from 17.3 µg/l (ppb) to 12 ppb, and the maximum daily total recoverable copper discharge limitation (acute) from 24.6 ppb to 18 ppb. Based on data posted by EPA between 2019-2023, Claremont would have met or exceeded the draft chronic effluent copper limit on more than one occasion. Claremont is also at risk of exceeding the acute effluent copper limit based on historic data. EPA used the existing copper limits for acute and chronic conditions to calculate the reasonable potential for exceeding the new criteria and found that both acute and chronic conditions would be exceeded, resulting in the more stringent limits.

We used the 2019-2023 copper data reported by EPA in its Appendix, combined with EPA's metal calculator approach (Appendix A and information in Appendix A RPA Addendum) to calculate the reasonable potential analysis (RPA) of Claremont exceeding the new effluent limits for copper. We found that in both the acute and chronic cases, effluent concentrations would not result in exceedances downstream (3.72 ppb and 4.32 ppb, respectively) of these more stringent criteria (3.9 ppb and 5.5 ppb), indicating current discharge concentrations already meet the water quality standards. While we recognize EPA does not consider RPA calculations on existing data once an existing limit has been set due to backsliding concerns, this calls to question the need for this more stringent limitation on copper and the approach used by EPA in establishing the new limits.

We request EPA recalculate the reasonable potential analysis based on current effluent concentrations that are consistent with the facility performance, not the current copper limitations.

The City of Claremont's new copper effluent limits were calculated based on a water effect ratio (WER) of 1 (per Env-Wq 1703.22(d)), a hardness of 41 mg/l (per Env-Wq 1703.22(i)), and a conversion factor of 0.96 (per Env-Wq Table 1703.2). The NH Administrative Code Env Wq 1703.22(d) provides procedures for site specific metals criteria to be calculated for differing water effect ratios⁸ or through use of a site-specific biotic ligand model, but language to this effect is not reflected in the Part II.H Special Conditions. Currently a biotic ligand model for calculating water effect ratios for copper is available and referenced in Env-Wq 1703.22(d) for freshwater systems⁹.

We request EPA modify Part II.H. Special Conditions to include a provision to develop metal limits based on a site-specific water effect ratio or a biotic ligand model that accounts for site-specific water quality criteria such as temperature, pH, dissolved organic carbon, alkalinity, cations, anions, and others.

⁸ EPA (2001). Streamlined Water-Effect Ratio procedure for Discharges of Copper, EPA-822-R-01-005.

⁹ EPA (2007). Aquatic Life Ambient Freshwater Quality Criteria - Copper, EPA-822-R-07-001.

Response 68

This comment suggests that the reasonable potential analysis was flawed because EPA used the existing copper limits rather than recent performance data in the calculation. EPA disagrees and notes that the rationale for this approach is clearly described on page A-3 of Appendix A of the Fact Sheet. In brief, the reasonable potential analysis for copper

using actual performance data has already been performed in a previous individual permit reissuance resulting in the establishment of effluent copper limits. Given that the facility still discharges copper, EPA is not performing another quantitative reasonable potential analysis because the finding of such an analysis would simply confirm whether the facility is meeting its current permit limits. Rather, EPA has already confirmed “reasonable potential” based on the analysis in the previous permit reissuance and is simply performing an updated calculation to confirm whether the existing limits are still protective of water quality standards using all updated data and information that is currently available. In this case, EPA found that the copper limits that were in effect do not adequately protect water quality standards and that new limits of 17.3 µg/L to 12 µg/L are necessary. If EPA were to maintain the higher effluent limits, the Permittee could legally increase their copper discharge up to those higher levels at any time during the permit term resulting in ongoing violations of water quality standards. Therefore, EPA confirms that these new limits are appropriate and necessary to ensure the protection of water quality standards. EPA’s technical approach on this issue is in keeping with the CWA generally and the NPDES regulations specifically, which reflect a precautionary approach to controlling pollutant discharges.

The commenter suggests that EPA’s approach is due to backsliding concerns. In certain circumstances, anti-backsliding statutory and regulatory authorities may prevent an increase in a limit even if EPA’s updated analysis shows that the current limit is sufficiently stringent such that an even higher limit would meet water quality standards. However, if the updated analysis shows that the current WQBEL (for a pollutant that has already triggered reasonable potential in a previous permit) would allow the Permittee to violate water quality standards (as in this case), EPA still considers that it is inappropriate and inconsistent with the CWA to maintain a WQBEL at that level in the permit reissuance, independent of any anti-backsliding analysis.

Regarding the development of a site-specific copper criteria using either the water effect ratio or a biotic ligand model, EPA notes that the Permittee is welcome to work with NHDES to collect the necessary data, calculate the site-specific criteria and submit a request to EPA for a permit modification (if justified based on the site-specific criteria). Upon receipt of such a request, EPA will review and act on the request based on available resources at that time. There is no need for the General Permit to include a provision to allow for this to occur.

Also see Response 66 regarding a separate change to the copper limits.

Comment 69

More Stringent Phosphorus Limitation

The EPA has reduced the average monthly (acute) total phosphorus effluent discharge limitation to 9.9 lbs/d for the period April 1- October 31. The more stringent limit is a function of the updated 7Q10 low flow data. Historical monitoring data shows this limit has been met or exceeded 3 times over the monitoring period for the permitted months.

We request EPA recalculate the effluent discharge limit using the updated 7Q10 values as discussed in comment B.a above.

Response 69

See Response 66.

Comment 70

New PFAS Monitoring Requirements - Frequency and Cost

The Draft NH Medium WWTF General Permit requires that facilities monitor PFAS analytes and adsorbable organic fluorine in influent, effluent, and sludge on a quarterly basis during the permit period. In Part 11.E.4, EPA extends PFAS analyte monitoring requirements on an annual basis to industrial users that fall into one of 10 or more user types, with the requirement of reporting for each industrial user placed on the facility.

The PFAS monitoring requirements in this permit are excessively burdensome, especially compared to the Small WWTF General Permits issued in Massachusetts and New Hampshire in 2021 and the Medium WWTF General Permit issued in Massachusetts in 2022. Facilities in MA and NH that discharge <1 MGD covered under the Small WWTF General Permit are only required to monitor for six PFAS analytes in influent, effluent, and sludge and this monitoring is required half as frequently (2/year) as the proposed NH Medium General Permit (4/year). Medium WWTF General Permit facilities in MA are required to monitor for 40 PFAS analytes in influent, effluent, and sludge using method 1633 on a similar schedule (1/Quarter), but are not required to test for adsorbable organic fluorine which is a significant addition to this already burdensome requirement.

The new PFAS testing requirements for Claremont represent an added analytical cost of approximately \$10,000 annually. The NH Medium Permit requirements therefore result in the greatest frequency and highest cost burden to date in the region for PFAS testing, with no foreseeable off ramp for reduced monitoring during the permit period. Considering there are 21 WWTFs that fall under this NH MGP where quarterly sampling of the influent, effluent, and sludge will be required, the state will generate 189 data points annually for PFAS Analytes across the state, and another 168 data points annually for AOF in the influent and effluent at these facilities. In addition, industrial users falling into PFAS use categories will also be sampled annually for PFAS Analytes, representing hundreds of more datapoints annually.

While we understand data collection is needed at WWTFs to understand PFAS sourcing and fate in our communities, we request that the extent of monitoring be capped at 2 years during the permit period. A 2-year monitoring cap will generate over 700 PFAS related datapoints in NH medium facilities and hundreds of other datapoints from industrial users in these sewersheds for use by EPA in understanding geographic and temporal fluctuations of PFAS. A 2-year monitoring cap would ease the financial burden, sampling effort, and reporting burden resulting from this requirement.

Response 70

See Response 49.

Comment 71

New PFAS Monitoring Requirements -Analytical Methods

In December 2024, the EPA posted a methodological revision to Method 1633 for Analysis of Per-and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS, which is now entitled Method 1633, Revision A (1633A). This follows five previous revisions of Method 1633 over a 3.5 year period, including a multi-lab validation. The release of this revised analytical method occurred after the EPA posted the notice of availability of the Draft New Hampshire Medium Wastewater Treatment Facility General Permit (November 13, 2024). The EPA states in this NH Draft Medium Permit: "Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633." The EPA further states on its web site ([CWA Analytical Methods for Per-and Polyfluorinated Alkyl Substances \(PFAS\) | US EPA](#)): "While the method [Method 1633A] is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking, the EPA recommends it now for use in individual permits". Similarly, Method 1621 for Adsorbable Organic Fluorine is not nationally required for CWA compliance but recommended for use in individual permits.

The New Hampshire Environmental Laboratory Accreditation Program (NHELAP) provides primary and secondary accreditation to environmental laboratories located within and outside the state to ensure sufficiently accurate, precise and consistent results of analyses. Although both EPA Method 1633A and 1621 are recommended for use in individual CWA permits, both have undergone significant revision and validation over a short period. Method 1633A and 1621 were both proposed for approval at 40 CFR Part 136.3 in December 2024, but their approval remains pending. Currently, there are no labs accredited for Method 1633A and 1621 through the NHELAP. Only 7 labs are accredited through the NHELAP for Method 1633, all of whom are located outside New Hampshire.

Analytical laboratories serving New Hampshire POTWs already have extended turn-around times for PFAS analyses. The volume of samples to be generated through the PFAS monitoring requirements in this permit would place additional pressure on an already constrained commercial laboratory network. These laboratories serve numerous states, and this monitoring requirement would add thousands of samples per year from NH POTW and their industrial users. This will undoubtedly result in: (a) extended hold times, which reduces data quality and reliability, and (b) long turn-around times for data, which impacts data reporting requirements at these facilities.

We request a revision to the PFAS monitoring requirements to place monitoring on hold until (a) Method 1633A and 1621 are promulgated in 40 CFR Part 136, Guidelines for Establishing Test Procedures for the Analysis of Pollutants, and (b) the NHELAP has the opportunity to assess and accredit laboratories for these two EPA methods for state water quality monitoring purposes.

Response 71

See Response 50.

Comment 72

New Pollutant Scan Monitoring Requirement- Frequency and Cost

The permit would require the City of Claremont conduct a Pollutant Scan for analytes listed in Attachment I for effluent and ambient samples on an annual basis during the permit period. It further requires in Part II.I that Claremont "Perform three pollutant scans for the pollutants listed in Attachment I, using a representative composite sample once per quarter in the final three full calendar quarters of the 5-year permit term:" Assuming Part II.I refers to effluent samples, this results in a minimum of 7 effluent pollutant scans and 5 ambient pollutant scans (12 total samples) during the 5-year permit cycle. The analytes defined within a pollutant scan are listed in Attachment I, and represent a per sample cost of \$850 to \$1,100 for all analytes depending on the analytical lab used.

The extended pollutant scan requirement defined in this permit is not consistent with pollutant scan requirements for Small and Medium WWTF General Permits issues in Massachusetts and New Hampshire in 2022 and 2023. Facilities in MA and NH that discharge <1 MGD are not required to scan for the pollutants listed in Attachment I. Medium WWTF in MA are only required to conduct three pollutant scans on effluent once per quarter in the final three full calendar quarters of the 5-year permit term.

- What is the purpose of an annual pollutant scan in effluent, especially in situation where no new industrial users have been added to the City's sewershed?
- Why is the City of Claremont WWTF required to test for pollutants in ambient water, when the facility is not responsible for background pollutants in the receiving water body?

The new pollutant scan requirement represents an added \$12,000 in additional monitoring costs over the permit period for the City. It also represents an additional \$2,000 per year in monitoring beyond what medium-sized facilities in MA are required to collect. WWTFs are not responsible for ambient pollutants, and effluent monitoring will be conducted at the end of the permit cycle, therefore annual pollutant scans in both effluent and ambient are not needed to continue to meet water quality requirements.

Based on these concerns, the City requests a revision to remove the requirement for the annual pollutant scan in both effluent and ambient water, a modification which would make NH WWTFs consistent with MA WWTFs of similar size from a monitoring standpoint.

Response 72

See Response 52.

Comment 73

Whole Effluent Toxicity (WET) Testing

EPA has increased the frequency of WET testing for LC50 and C-NOEC from semiannually to quarterly. As documented in the City's previous permit (2016), a request was made to EPA in

December 2013 to reduce the frequency of WET testing, which was consistent with Section I of the Special Conditions of the 2006 permit.

"The permittee may submit a written request to the EPA-New England requesting a reduction in the frequency (to not less than once per year) of required toxicity testing, after completion of a minimum of the most recent four (4) successive toxicity tests of effluent, all of which must be valid tests and demonstrate compliance with the permit limits for whole effluent toxicity. Until written notice is received by certified mail from the EPA-New England indicating that the WET testing requirement has been changed, the permittee is required to continue testing at the frequency specified in the respective permit:"

The 2016 permit therefore reflected the reduced testing frequency and made reference to the acceptability of the reduction based on the 2006 Special Condition.

The draft permit also includes a more stringent requirement for the City's C-NOEC, increasing the Chronic C-NOEC from 15.4% to 27%. This change is directly related to the reduction in dilution factor from 6.5 to 3.74.

The City requests that EPA reinstate the Special Condition to allow for the reduction of toxicity testing frequency to twice annually.

In Part II.A.1, note 18, EPA states that "if the Permittee identifies or is provided notice of a sudden and significant death of large numbers of fish and/or shellfish in the vicinity of the discharge, the Permittee shall follow the procedures described in Part II.H.5". In Part II.H.5.a, similar language is found defining requirements for Accelerated WET Testing.

The Town requests that EPA define "sudden", "significant death", and "large numbers" in the context of this requirement.

Response 73

EPA acknowledges that previous reductions in WET testing frequency below what is recommended by EPA guidance were allowable based on historic compliance. However, based on EPA's use of WET testing data throughout MA and NH in recent years, EPA's current position is that WET testing for major WWTFs (*i.e.*, with a design flow above 1 MGD) should not fall below the frequency specified in the Fact Sheet at 36-37 (based on EPA guidance). Given the large variety of sources and the inherent variability of these sources, EPA has decided to revert all such dischargers to be in accordance with EPA guidance. EPA understands that this monitoring entails an additional cost (if it represents an increase in frequency from the previous individual permit) but considers this to be necessary to ensure there is adequate toxicity data available to inform future permitting decisions.

Regarding the change in the C-NOEC limit based on the dilution factor, see Response 66.

Regarding accelerated WET testing, see Response 53.

Comment 74

Aesthetics -New Monitoring Requirement

EPA is requiring in Part II.A that facilities conduct, monthly, a "visual inspection of the receiving water in the vicinity of the outfall and report any changes that may be caused by the discharge" related to odor, color, turbidity, floating materials, settleable solids, and films/sheens. EPA is also requiring facilities to report complaints of taste/odor and remedial actions to address complaints. Reporting for inspections and complaints would occur at the end of each calendar year.

1. What is the purpose of this aesthetic monitoring?
2. How will the information be used by EPA, especially considering it is submitted on an annual basis?
3. What standard methods would facilities use, and how would WWTF staff be consistently trained to inspect and describe these parameters?

Through this permit requirement, the EPA has placed an added, qualitative policing requirement on the City of Claremont. Claremont WWTF operators closely monitor effluent water quality for the parameters listed in this requirement. However, the City has no control of receiving water quality, and requiring staff the added responsibility of policing water quality in the vicinity of the discharge would open the City up to litigation to changes in water quality that are beyond the WWTF's control. In addition, because visual observations are qualitative and EPA cites no standard protocols or methods for this monitoring, inspection quality would vary with time and staff.

Based on these concerns, the City requests a revision to remove the aesthetic monitoring requirement, which would make the permit requirements consistent with smaller NH facilities and MA facilities of similar size.

Response 74

See Response 54.

Comment 75

Benthic Survey and Details provided in Part II.H.6

EPA proposes that for some facilities, a benthic survey be conducted once per permit period. It states that "During the third calendar quarter (i.e., July through September) that begins at least 12 months after the effective date of the permit, a benthic survey shall be conducted for facilities with a dilution factor below 100 once per permit term to assess impacts from the discharge on aquatic life in the benthic environment." Part II.H.6 broadly defines the sample locations, the number of required samples, the survey taxonomic level, who can perform the survey, and the deadline for submitting a summary report.

The City requests removal of the benthic survey requirement from the permit based on the following concerns:

1. The NHDES¹⁰ and EPA¹¹ have each established standard protocols for conducting benthic habitat surveys in freshwater bodies. These protocols define standard field sampling methods (e.g., install a rock basket), establish laboratory protocols (e.g., through specified taxonomic counts per unit area), and provide a template for data through analysis and reporting.
 - Why does the benthic survey requirement not reference one of these documents as a standard protocol for field sample collection, laboratory analysis, and report preparation for facilities discharging to freshwater environments, instead leaving the details ambiguous?
 - Will EPA or NHDES draw on standard protocol(s) for conducting benthic surveys in marine environments, in order to bound the effort needed to meet this requirement? For example, see efforts coordinated through NOAA¹² for coastal environments.
2. The methodological ambiguity of the benthic survey would result in a wide range of data collection and analysis efforts. The approach taken for the benthic survey would also be specific to the site and the firm chosen to carry out the survey.
 - Because of this ambiguity, a standard approach should be undertaken at the state or federal level, with benthic surveys conducted using the same protocol with site-specific conditions considered from each POTW. Such an approach would greatly reduce the overall cost burden for this requirement, and allow for greater data standardization across facilities, watersheds, and type of aquatic environment.
3. We have estimated that a survey could cost the city \$35,000 when no index of biotic integrity is calculated. Advanced financial planning would be required to cover the cost of this survey.
 - Would EPA or NHDES provide a funding mechanism to partially or fully support a benthic survey, or would the cost for such a survey be fully borne by the community?

10 NHDES Water Division-Watershed Management Bureau. 2013. NHDES Protocols for Macroinvertebrate Collection, Identification and Enumeration.

11 Barbour, M.T., J. Gerritsen, B.D.. Snyder, and J.B. Stribling. 1999. Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton Benthic Macroinvertebrates and Fish Second Edition. EPA 841-8-99-002. U.S. Environmental Protection Agency; Office of Water; Washington, D.C.

12 NCCOS NOAA National Benthic Inventory. <http://products.coastalscience.noaa.gov/nbi/>

Response 75

EPA agrees that it is appropriate to establish standard protocols and appreciates the comments suggested references. Based on this comment, EPA has revised this requirement in the Final General Permit as follows.

For discharges to freshwater receiving waters, the permittees shall conduct the benthic survey described in the permit as consistently as possible with the applicable portions of the *NHDES Protocols for Macroinvertebrate Collection, Identification and Enumeration* available at <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/1macroinverts-sop.pdf>.

For discharges to marine receiving waters, the permittees shall conduct the benthic survey described in the permit as consistently as possible with the applicable portions of the *NHDES Evaluation Of Sediment Quality Guidance Document* available at: <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/wd-04-9.pdf>. See particularly section I.C – *Conduct an assessment of community integrity*.

Regarding cost, see Response 1.

Comment 76

PFAS Sampling by Industrial Users

Sampling of Specific Industrial Users for PFAS. With respect to PFAS monitoring of industrial users, Part II.F.6 of the Draft Permit requires the City conduct annual sampling of industrial discharges require industrial users falling into ten defined categories to sample their discharge for PFAS Analytes using method 1633. Data must be reported annually in the March discharge report. This may require the City change or update industrial pretreatment permit monitoring requirements and will result an additional cost to industrial users of at least \$425 per sample. The City may wish to seek clarity in on the type of sampling required (grab vs 24-hour composite) as It is not defined in this requirement.

PFAS Sampling of Industrial Users. The City of Claremont has at least one significant industrial user its pretreatment program. While not all of these users fall into one of the categories defined for PFAS in sampling, it will be necessary for Claremont to update its industrial user permit fee in order to cover the cost for PFAS analysis. Additionally, because wastewater sampling for PFAS requires specific protocols and training, it will also be necessary for Claremont to shift staff time and acquire appropriate equipment to complete the required sampling. This programmatic aspect is another burdensome requirement of PFAS monitoring. Additionally, the EPA intends to conduct a national study on industrial wastewater discharges of PFAS to POTWs at facilities accepting >10 million gallons per day and a service population ≥50,000 (Claremont has service population of approximately 13,000 persons so this study will not apply to Claremont)¹³. The national study will select 2,000 industrial users from 200-300 POTWs for PFAS sampling. The study is currently going through the information collection request approval process and is expected to begin in 2025.

Since the EPA is moving forward with collecting this information at a national level through a coordinated sampling effort that targets 10 users within each POTW sewershed, there is no need for individual communities with smaller flows, like Claremont, to replicate this effort by targeting all industrial users falling into potential PFAS use categories. We request the requirement to sample industrial users for PFAS be removed until EPA has completed its national study, which will guide targeted sampling in smaller communities.

¹³ EPA, 2024. POTW Influent PFAS Study. <https://www.epa.gov/eg/potw-influent-pfas-study#current-status>

Response 76

Regarding cost and industrial users, see Response 6.

Regarding the national study, see Response 12.

Comment 77

Adaptation Planning

The NH Medium General Permit Part I.C.1. requires Adaptation Planning be developed by the permittee and co-permittees. This requirement appears to impose an undue burden on the City of Claremont. The Adaptation Plan is quite comprehensive and includes three primary components. Each has a mandated timeline and requires significant resources. Identifying critical assets, assessing adaptive measures, and preparing an implementation and maintenance schedule within the specified timeframes can be a major demand on permittees and co-permittees with limited staff and budget.

Since the federal administration change in the White House and the federal government in January, there have been a number of Executive Orders issued. Several of these Executive Orders either rescinded or suspended environmental regulatory programs, including climate change. EPA shall not require communities to comply with permit conditions that are inconsistent to the new administration's agenda. Doing so falls outside of EPA's authority under the Clean Water Act's NPDES program.

Therefore, the City requests that EPA remove Part C.1. -Adaptation Planning from the Permit.

Moreover, the Adaptation Plan does not appear to come with provisions for funding or financial support for permittees. Undertaking vulnerability assessments, adaptive measures assessments, and the subsequent implementation and maintenance schedules would likely require considerable financial investments. Limited federal or state funding will lead many permittees and co-permittees to consider this an unfunded mandate. As more permittees and co-permittees receive new permits, there is a need for a program to fund all components of the Adaptation Plan.

Current federal and state funding requires the permittees and co-permittees to apply for and secure a loan or grant award, as well as obtain borrowing authorization before they can complete eligible portions of the Plan within the mandated timeline. Based on the size and scope of the Adaptation Plan outlined in the permit, the mandated timeline is not enough time to complete the Plan. The rigid timelines for each component of the Adaptation Plan, even when Part I.C.1.b. is considered, may not fully address the variations in capacity and complexity of systems managed by permittees and co-permittees. Allowing flexibility would be beneficial and enable permittees and co-permittees to adjust the process to meet their specific needs.

Component 3: Implementation and Maintenance Schedule requires permittees and co-permittees to submit a proposed schedule along with details on funding sources for adaptive measures. This could result in a long-term financial burden, particularly if the identified adaptive measures are expensive or if funding sources are not readily available. If funding is challenging, other asset management priorities may need to be deferred, which could exacerbate existing, known issues.

Should EPA exceed its legal authority and impose adaptation planning contrary to the new administration's position on climate-related policies, the City suggests the EPA consider adjustments to these requirements to address these concerns to best ensure the City of Claremont will be able to fully comply with the permit. We also request NH DES provide a state-supported funding mechanism to partially or fully support efforts associated with meeting the Adaptation Planning requirements. In order to provide an effective Adaptation Plan we request EPA to modify the Adaptation Plan timeframes as follows:

1. Component 1: 24 months of the effective permit date_ to 36 months of the effective permit date
2. Component 2: 36 months of the effective permit date to 12 months following acceptance of Component 1
3. Component 3: 48 months of the effective permit date to 12 months following acceptance of Component 2

Response 77

See Response 2.

L. Comments from John Storer, Director of Community Services, City of Dover, on February 11, 2025.

Comment 78

New Enterococci Effluent Limit and Updated Fecal Coliform Limit

The Medium General Permit (MGP) includes new effluent discharge limits for Enterococci (average monthly 35 CFU/100 ml and maximum daily 104 CFU/100 ml) and Fecal Coliform (average monthly 14 CFU/100 ml and maximum daily 28 CFU/100 ml) for the City of Dover.

The *Enterococci* limit has been added to the City's permit to protect the recreational use of the receiving waters. In the previous permit, the City was required to monitor for this parameter. However, the state of NH has revised its statutes since the previous NPDES Permit which has resulted in this new permit limit. Based on the monitoring data for the previous four years, there have been periods when the City would have exceeded the new *Enterococci* limit. For Fecal Coliform, although the maximum daily limit was reduced, based on review of the data, this is not anticipated to impact the City since $\leq 10\%$ of daily maximum Most Probable Number (MPN) can exceed this limit.

The City of Dover WWTF discharges to a tidal section of the Piscataqua River through a diffuser-style outfall that is set approximately 19 feet below sea level. In addition to an outfall well below the water surface, the City's dilution factor is 100 into this tidal water body. Given both the location of the outfall and the dilution factor of the facility into its receiving water body, the likelihood of contact through swimming is exceedingly low.

Response to EPA

The City of Dover requests an exception to the Enterococci discharge limitation given its discharge location and dilution factor.

If EPA is unwilling to allow for an exception, the City of Dover requests EPA consider modifying this discharge limitation based on the following: Monitoring data for the period 2019-2023 indicates that the City of Dover has exceeded these criteria on 24 occasions. The City of Dover has determined that exceedances of Enterococci during the monitoring period generally occurred after periods of high runoff and peak flows to the wastewater facility. The City is aware that EPA has established a 2-year compliance period in this draft MGP which includes one year to consider optimization, source reduction, and/or minor process change in the first year with implementation of these findings in the second year. The City will report progress toward achieving this permit limit every 12 months in a status report.

The *Enterococci* standard applied for this NH MGP derives from the Env-WQ 1700, Appendix E, which references NH RSA 485-A:8¹. These standards met the criteria established by the EPA in the 1986 "Gold Book"². However, the EPA has updated these standards in 2012 with the revised recreational water quality criteria which include both a geometric Enterococci mean of 35 MPN/100 ml and a statistical threshold value (STY) of 130 MPN/100 ml, based on an estimated illness rate of 36 per 1,000 contactors.³ The updated 2012 EPA Enterococci criteria also allow for <10% of STY values within a 30-day interval to exceed the limit. NHDES has not yet adopted these updated EPA standards in RSA 485-A or Env-WQ 1700 which could significantly impact NPDES permit results and subsequently, municipalities who discharge to a water body used for recreational use.

Response to EPA

The City of Dover requests the EPA to apply the updated 2012 Standards³ in lieu of the original 1986 Gold Book² to allow for a 10% exceedance frequency in its maximum daily limit. If the EPA is unable to apply these standards because NH has not adopted them in state administrative code, we request EPA provide language in its Standard Conditions that allows the City the right to modify their permit in the future when NH reviews adoption of this updated Enterococci standard (and other impacted bacterial indicator standards developed in the 2012 revision).

¹ New Hampshire RSA 485-A:8 - Standards for Classification of Surface Waters of the State.
<https://gencourt.state.nh.us/rsa/html/L/485-A/485-A-8.htm>.

² EPA (1986). Quality Criteria for Water 1986. EPA 440/5-86-00 I.

³ EPA (2012). Recreational Water Quality Criteria. EPA 820-F-12-058.

Response 78

First, this comment requests that the dilution factor be applied to the Enterococci limit. However, Env-Wq 1703.06(b) indicates that "bacteria criteria shall be applied at the end of a wastewater treatment facility's discharge pipe." Therefore, EPA is not able to accommodate this request.

Second, this comment requests that EPA apply 2012 EPA recommended Enterococci criteria even though NHDES has not adopted these criteria. Similarly, EPA must ensure

compliance with the current state water quality standards and is not able to apply any other criteria. EPA confirms that if these state standards change in the future, the Permittee may request a corresponding update in this permit through a permit modification or reissuance. It is not necessary to include any provision in the Standard Conditions of the permit to allow for this to occur.

Comment 79

New PFAS Monitoring Requirements - Frequency and Cost

The Medium General Permit (MGP) requires that facilities monitor PFAS analytes and adsorbable organic fluorine in influent, effluent, and sludge on a quarterly basis during the permit period. In Part II.E.4, EPA extends PFAS analyte monitoring requirements on an annual basis to industrial users that fall into one of 10 or more user types, with the requirement of reporting for each industrial user placed on the facility.

Response to EPA

The PFAS monitoring requirements in this permit are excessively burdensome, especially compared to the Small WWTF General Permits issued in Massachusetts and New Hampshire in 2021 and the Medium WWTF General Permit issued in Massachusetts in 2022. Facilities in MA and NH that discharge <1 MGD covered under the Small WWTF General Permit are only required to monitor for six PFAS analytes in influent, effluent, and sludge and this monitoring is required half as frequently (2/year) as the proposed NH MGP (4/year). Medium General Permit facilities in MA are required to monitor 40 PFAS analytes in influent, effluent, and sludge using method 1633 on a similar schedule (1/Quarter), but are not required to test for adsorbable organic fluorine which is a significant addition to this already burdensome requirement.

The new PFAS testing requirements at Dover represent an added analytical cost of approximately \$10,000 annually. The MGP requirements therefore represent the greatest frequency and highest cost burden to date in the region for PFAS testing, with no foreseeable off ramp for reduced monitoring during the permit period. Considering there are 21 WWTFs that fall under this NH MGP where quarterly sampling of the influent, effluent, and sludge will be required, the state will generate 189 data points annually for PFAS Analytes across the state, and another 168 data points annually for AOF in the influent and effluent at these facilities. In addition, industrial users falling into PFAS use categories will also be sampled annually for PFAS Analytes, representing hundreds of more datapoints annually.

While we understand data collection is needed at WWTFs to understand PFAS sourcing and fate in our communities, we request that the extent of monitoring be capped at 2-years during the permit period. A 2-year monitoring cap will generate over 700 PFAS related datapoints in NH medium facilities and hundreds of other datapoints from industrial users in these sewer sheds for use by EPA in understanding geographic and temporal fluctuations of PFAS. A 2-year monitoring cap would ease the financial burden, sampling effort, and reporting burden resulting from this requirement.

Response 79

See Responses 49.

Comment 80

New PFAS Monitoring Requirements -Analytical Methods:

In December 2024, the EPA posted a methodological revision to Method 1633 for Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS, which is now entitled Method 1633, Revision A (1633A). This follows five previous revisions of Method 1633 over a 3.5-year period, including a multi-lab validation. The release of this revised analytical method occurred after the EPA posted the notice of availability of the Draft Medium General Permit (MGP) (November 13, 2024). The EPA states in this MGP: "Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633." The EPA further states on its web site (CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances (PFAS) | US EPA): "While the method [Method 1633A] is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking, the EPA recommends it now for use in individual permits". Similarly, Method 1621 for Adsorbable Organic Fluorine is not nationally required for CWA compliance but recommended for use in individual permits.

Response to EPA

The New Hampshire Environmental Laboratory Accreditation Program (NHELAP) provides primary and secondary accreditation to environmental laboratories located within and outside the state to ensure sufficiently accurate, precise and consistent results of analyses. Although both EPA Method 1633A and 1621 are recommended for use in individual CWA permits, both have undergone significant revision and validation over a short period. Method 1633A and 1621 were both proposed for approval at 40 CFR Part 136.3 in December 2024, but their approval remains pending. Currently, there are no labs accredited for Method 1633A and 1621 through the NHELAP. Only 7 labs are accredited through the NHELAP for Method 1633, all of whom are located outside New Hampshire.

Analytical laboratories serving New Hampshire POTWs already have extended turn-around times for PFAS analyses. The volume of samples to be generated through the PFAS monitoring requirements in this permit would place additional pressure on an already constrained commercial laboratory network. These laboratories serve numerous states, and this monitoring requirement would add thousands of samples per year from NH POTW and their industrial users. This will undoubtedly result in: (a) extended hold times, which reduces data quality and reliability, and (b) long turn-around times for data, which impacts data reporting requirements at these facilities.

We request a revision to the PFAS monitoring requirements to place monitoring on hold until (a) Method 1633A and 1621 are promulgated in 40 CFR Part 136, Guidelines for Establishing Test Procedures for the Analysis of Pollutants, and (b) the NHELAP has the opportunity to assess and accredit at least 3 laboratories for these two EPA methods for state water quality monitoring purposes.

Response 80

See Response 50.

Comment 81

New Pollutant Scan Monitoring Requirement Frequency and Cost:

The Medium General Permit (MGP) would require the City of Dover conduct a Pollutant Scan for analytes listed in Attachment I for effluent and ambient samples on an annual basis during the permit period. It further requires in Part II.I that Dover "Perform three pollutant scans for the pollutants listed in Attachment I, using a representative composite sample once per quarter in the final three full calendar quarters of the 5-year permit term." Assuming Part II.I refers to effluent samples, this results in a minimum of seven (7) effluent pollutant scans and five (5) ambient pollutant scans (12 total samples) during the 5-year permit cycle. The analytes defined within a pollutant scan are listed in Attachment I and represent a per sample cost of \$850 to \$1,100 for all analytes depending on the analytical lab used.

Response to EPA

The extended pollutant scan requirement defined in this permit is not consistent with pollutant scan requirements for Small and Medium General Permits issued in Massachusetts and New Hampshire in 2022 and 2023. Facilities in MA and NH that discharge <1 MGD are not required to scan for the pollutants listed in Attachment I. Medium WWTF in MA are only required to conduct three pollutant scans on effluent once per quarter in the final three full calendar quarters of the 5-year permit term.

- What is the purpose of an annual pollutant scan in effluent, especially in situations where no new industrial users have been added to the City's sewer shed?
- Why is the City of Dover WWTF required to test pollutants in ambient water, when the facility is not responsible for background pollutants in the receiving water body?

The new pollutant scan requirement represents approximately \$13,000 in additional monitoring costs over the permit period for the City. It also represents an additional \$2,200 per year in monitoring beyond what medium facilities in MA are required to collect. WWTFs are not responsible for ambient pollutants, and effluent monitoring will be conducted at the end of the permit cycle, therefore annual pollutant scans in both effluent and ambient are not needed to continue to meet water quality requirements.

Based on these concerns, the City requests a revision to remove the requirement for the annual pollutant scan in both effluent and ambient water, a modification which would make NH WWTFs consistent with MA WWTFs of similar size from a monitoring standpoint.

Response 81

See Response 52.

Comment 82

New Monitoring Requirement - Aesthetics

EPA is requiring in Part II.A that facilities conduct, monthly, a "visual inspection of the receiving water in the vicinity of the outfall and report any changes that may be caused by the discharge" related to odor, color, turbidity, floating materials, settleable solids, and films/sheens. EPA is also requiring facilities to report complaints of taste/odor and remedial actions to address complaints. Reporting for inspections and complaints would occur at the end of each calendar year.

Response to EPA

- What is the purpose of this aesthetic monitoring?
- How will the information be used by EPA, especially considering it is submitted on an annual basis?
- What standard methods would facilities use, and how would WWTF staff be consistently trained in order to inspect and describe these parameters?

Through this permit requirement, the EPA has placed an added, qualitative policing requirement on the City of Dover. Dover WWTF operators closely monitor effluent water quality for the parameters listed in this requirement. However, the City has no control of receiving water quality, and requiring staff the added responsibility of policing water quality in the vicinity of the discharge would open the City up to litigation to changes in water quality that are beyond the WWTF control. In addition, because visual observations are qualitative and EPA cites no standard protocols or methods for this monitoring, inspection quality would vary with time and staff.

Based on these concerns, the City requests a revision to remove the aesthetic monitoring requirement, which would make the permit requirements consistent with smaller NH facilities and MA facilities of similar size.

Response 82

See Response 54.

Comment 83

pH Range Modification

The MGP requires that the effluent discharge pH range remain within 6.5 to 8.0 S.U. In 2006, the City was granted approval from New Hampshire Department of Environmental Services Wastewater Engineering Bureau for an adjustment to their permitted pH discharge range from 6.5 - 8.0 S.U. to 6.0 - 8.0 S.U. after demonstrating that the pH adjusted wastewater effluent from the City of Dover's WWTF had little to no effect on the pH of the receiving water. Since that time, the City has experienced no significant process or flow changes. In addition, they have fewer industrial users now than at the time of approval for the modification.

Response to EPA

In Part 11.H.1., EPA indicates that the pH range may be modified if the Permittee satisfies conditions set forth in Part II.K.5. As the City of Dover has previously completed the

demonstration study to receive approval from NHDES and has been operating within the range of 6.0 - 8.0 S. U. since 2006, the City requests that their current permit is updated to reflect the modified pH range.

Response 83

See Response 9.

Comment 84

New Requirements for the Industrial Pretreatment Program and Industrial Users

In Part II.F of the Medium General Permit (MGP), the City of Dover understands that EPA has added new requirements in six areas of our Industrial Pretreatment Program. These new requirements describe the City of Dover's **Legal Authority** and responsibility for enforcing pretreatment standards and local limits (Part II.F.1); specific **Implementation Requirements** for the City's pretreatment program (Part II.F.2) including discharge characterization, inspections, monitoring, and enforcement; new requirements for **Local Limit Development** (Part II.F.3); new Notification Requirements for the addition of new users or pollutants, physical alterations in the facility, or changes to its Pretreatment Program (Part II.F.4); a new **Annual Report Requirement** (Part II.F.5, see details below); and new **Sampling of Specific Industrial Users for PFAS** (Part II.F.6, see below).

Annual Report Requirement. In Attachment G, Industrial Pretreatment Program Annual Report, the City is now required to submit an annual report describing program activities and user status. This report includes requirements for the City to describe any minor changes to its Pretreatment Program and the date of latest adoption of local limits. It requires reporting of the City's Pretreatment Program compliance activities, enforcement activities, and program effectiveness. It also requires the City to summarize current and new industrial users, violations and violation actions, inspection activities, and PFAS monitoring results.

Sampling of Specific Industrial Users for PFAS. With respect to PFAS monitoring of industrial users, Part II.F.6 of the MGP requires the City conduct annual sampling of industrial discharges or require industrial users falling into ten defined categories to sample their discharge for PFAS Analytes using method 1633. Data must be reported annually in the March discharge report. This may require the City to change or update industrial pretreatment permit monitoring requirements and will result in an additional cost for industrial users of at least \$425 per sample.

Response to EPA

PFAS Sampling of Industrial Users. The City of Dover has over 150 industrial users in its pretreatment program. While not all of these users fall into one of the categories defined for PFAS sampling, it will be necessary for Dover to update its industrial user permit fee in order to cover the cost for PFAS analysis. Additionally, because wastewater sampling for PFAS requires specific protocols and training, it will also be necessary for Dover to shift staff time and acquire appropriate equipment (e.g., autosamplers) to complete the required sampling. This programmatic aspect is another burdensome requirement of PFAS monitoring. Additionally, the EPA intends to conduct a national study on industrial wastewater discharges of PFAS to POTWs

at facilities accepting > 10 million gallons per day and a service population ≥50,000 (Dover has service population of approximately 33,500 persons)⁴. The national study will select 2,000 industrial users from 200-300 POTWs for PFAS sampling. The study is currently going through the information collection request approval process and is expected to begin in 2025.

- As some of the City's industrial users' operations are kept confidential and/or are proprietary, what will be the end use of the collected data submitted as part of the monitoring?
- Will the City, on behalf of their industrial users, be able to request that the collected data remain confidential?

Since the EPA is moving forward with collecting this information at a national level through a coordinated sampling effort that targets 10 users within each POTW sewer shed, there is no need for individual communities with smaller flows, like Dover, to replicate this effort by targeting all industrial users falling into potential PFAS use categories. We request the requirement to sample industrial users for PFAS be removed until EPA has completed its national study, which will guide targeted sampling in smaller communities.

⁴ EPA, 2024. POTW Influent PFAS Study. <https://www.epa.gov/eg/potw-influent-pfas-study#current-status>

Response 84

Regarding cost and industrial users, see Response 6.

Regarding the national study, see Response 12.

Regarding confidentiality, EPA addressed similar concerns when first including these provisions in permits. In response, EPA added the following provision: “[i]n light of security concerns posed by the public release of information regarding vulnerabilities to wastewater infrastructure, the Permittee shall provide information only at a level of generality that indicates the overall nature of the vulnerability but omitting specific information regarding such vulnerability that could pose a security risk.” In any case, to the extent a permittee believes that information is confidential or proprietary, the permittee may avail itself of Part VII.A.6 of the permit, which allows for the assertion of confidentiality pursuant to 40 CFR Part 2.

Comment 85

New Requirements for Adaptation Planning

The Medium General Permit (MGP) Part I.C.1. requires Adaptation Planning to be developed by the permittee and co-permittees. This requirement appears to impose an undue burden on the City of Dover. The Adaptation Plan is quite comprehensive and includes three primary components. Each has a mandated timeline and requires significant resources. Identifying critical assets, assessing adaptive measures, and preparing an implementation and maintenance schedule within the specified timeframes can be a major demand on permittees and co-permittees with limited staff and budget.

Response to EPA

The Adaptation Plan does not appear to include provisions for funding or financial support for permittees. Undertaking vulnerability assessments, adaptive measures assessments, and the subsequent implementation and maintenance schedules would likely require considerable financial investments. Limited federal or state funding will lead many permittees and co-permittees to consider this an unfunded mandate. As more permittees and co-permittees receive new permits, there is a need for a program to fund all components of the Adaptation Plan.

Current federal and state funding requires the permittees and co-permittees to apply for and secure a loan or grant award, as well as obtain borrowing authorization before they can complete eligible portions of the Plan within the mandated timeline. Based on the size and scope of the Adaptation Plan outlined in the permit, the mandated timeline is not sufficient. The rigid timelines for each component of the Adaptation Plan, even when Part I.C.1.b. is considered, may not fully address the variations in capacity and complexity of systems managed by permittees and co-permittees. Allowing flexibility would be beneficial and enable permittees and co-permittees to adjust the process to meet their specific needs.

Component 3: Implementation and Maintenance Schedule requires permittees and co-permittees to submit a proposed schedule along with details on funding sources for adaptive measures. This could result in a long-term financial burden, particularly if the identified adaptive measures are expensive or if funding sources are not readily available. If funding is challenging, other asset management priorities may need to be deferred, which could exacerbate existing, known issues.

We suggest the EPA consider adjustments to these requirements to address these concerns to best ensure the City of Dover will be able to fully comply with the permit and NHDES provide a state-supported funding mechanism to partially or fully support efforts associated with meeting the Adaptation Planning requirements.

Response 85

See Response 2.

Comment 86

New Requirements for Operation and Maintenance (O&M) of the Sewer System

In Part II.C.2, of its MGP, the City of Dover understands that EPA has added new requirements for how it operates and maintains the sewer system. Sections C.2.a) through C.2.e) describe the City of Dover's requirement to:

- Maintain adequate maintenance staff,
- perform preventative maintenance
- control inflow and infiltration (I/I)
- to separate sewer collection systems,

- map the wastewater collection system,
- prepare and implement a collection system O&M plan,
- report unauthorized discharges, and
- maintain alternate power where necessary.

The City is further required in Part II.C.3 to summarize the activities toward implementation of its approved O&M plan in an Annual Report (Part II.C.3).

Response to EPA

The City does not offer comments to EPA for this permit requirement.

Response 86

EPA acknowledges this comment.

Comment 87

Standard Conditions

In Part VII.A. 1.a of the Standard Conditions, EPA states that "Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement."

Response to EPA

Although similar phrasing was in the standard conditions for recent permits in NH and MA, this language is particularly concerning at this time in rulemaking. This is an exceedingly far-reaching statement that would essentially require facilities to comply with CW A changes, even if those standards are not incorporated into this NH Medium General Permit (MGP). Such language sets up an expectation that facilities will need to anticipate and plan for future (unknown) federal or state water quality standards or permit limits. It also negates the long precedent of NPDES permit writers applying site specific criteria and facility specific compliance plans for POTWs to meet new water quality regulations. This language is especially concerning in the context of EPA's release of Draft Ambient Water Quality Criteria for the Protection of Human Health⁵.

We request EPA provides an exception to these conditions in the event that EPA or NHDES set surface water quality standards or sludge/biosolids quality standards for PFAS and other emerging contaminants. The ability to meet water quality or sludge/biosolids standards for PFAS could require considerable planning by the City, therefore having the opportunity to respond to limits within the NPDES permitting process is essential.

⁵ EPA, 2024. Draft National Recommended Ambient Water Quality Criteria for the Protection of Human Health for Perfluorooctanoic Acid, Perfluorooctane Sulfonic Acid, and Perfluorobutane Sulfonic Acid, Federal Register, 2024-30637 (89 FR 105041).

Response 87

See Response 56.

M. Comments from Jeffrey Backman, Superintendent, Allentown Sewer Commission, on February 11, 2025.

Comment 88

I am writing to express my concerns, particularly focusing on the economic implications and reasonability of the proposed effluent limitations and monitoring requirements.

Cost of Compliance

The extensive monitoring and reporting requirements outlined in the permit will impose significant financial burdens on the facility. Regular sampling and analysis for numerous parameters, including emerging contaminants like PFAS, will require substantial resources. The costs associated with these activities could divert funds from other essential operations and improvements, ultimately affecting the facility's overall efficiency and effectiveness.

Impact on User Fees

As compliance costs rise, there is a legitimate concern that the facility may need to increase user fees for wastewater treatment services. This increase would disproportionately affect low-income households and small businesses in our community, leading to potential issues of affordability and access to essential services. It is crucial to consider the economic impacts that may arise from compliance with this permit. Two of my concerns are:

Disproportionate Impact: Higher fees may disproportionately affect low-income households and small businesses, leading to financial strain. As these households allocate more of their income to cover increased utility costs, they may face challenges in affording other essential needs, exacerbating existing inequalities within the community.

Induced Inflation: Increased user fees can lead businesses to raise prices for goods and services, contributing to overall inflation in the local economy. This inflation can further burden low-income residents, as their overall living costs rise, making it even more difficult for them to manage their finances.

Call for Comprehensive Analysis

I urge the relevant authorities to carry out and release to the public a clear cost-benefit analysis to weigh the economic costs of compliance against the environmental benefits of the new proposed permit requirements. This analysis should help explain any changes to the permit, ensuring a better balance between protecting the environment and addressing the economic challenges faced by the facility and the community.

Reasonability

It seems that the EPA and NHDES have taken a more aggressive approach to new regulations recently. In the past few decades, permit changes were implemented more efficiently and with

better timing, allowing permit holders to adapt without feeling overwhelmed. For example, the rollout of CMOM and nutrient regulations was managed in a way that minimized the burden on permittees. However, the proposed changes in this draft permit are proving to be overwhelming for both the communities and the operators involved. On top of the new “Adaptive Plan Requirements”, Allentown for instance is receiving an aluminum limit, new pH limits, new PFAS testing requirements with significantly longer analyte list than their 2021 permit, adsorbable organic fluorine testing requirements, a new requirement for a pollutant scan, a requirement for aesthetics, among others. Unfortunately, this list of new regulations in Allentown’s draft permit continues to grow, leading me to conclude that the EPA and NHDES are no longer administering NPDES permits in a reasonable manner.

Response 88

Regarding cost, see Responses 1, 2, 6, and 52.

Comment 89

Test Methods

40 CFR 136 outlines the guidelines and procedures for testing and analyzing pollutants in wastewater. Specifically, it provides approved methods for the analysis of pollutants under the National Pollutant Discharge Elimination System (NPDES) program, which is part of the Clean Water Act. This regulation ensures that test methods can accurately report analyses for various pollutants.

Currently, there is no approved analytical method for Adsorbable Organic Fluorine (AOF) or PFAS analytes in 40 CFR 136. Therefore, it is both impractical and unjust to require permit holders to conduct testing for these parameters. It is unreasonable to impose any testing requirements until a standardized method is formally incorporated into 40 CFR 136, ensuring that all permit holders have access to reliable and consistent testing protocols. Expecting permittees to test for an analyte that has not been included in 40 CFR 136 is not reasonable. Consequently, the frequency of analysis in Allentown’s draft permit should be reduced from quarterly to twice a year or, preferably, eliminated altogether.

Response 89

See Response 11.

Comment 90

Aluminum Limit Allentown

The EPA has published a document titled "Appendix Allentown-Monitoring Data Summary," which indicates that Allentown’s wet effluent has a median daily maximum for aluminum of 0.083 mg/L. Imposing an aluminum limit in Allentown is not only unreasonable but also economically impractical, as the current discharge does not cause or contribute to violations of water quality standards. A critical question arises: do the potential benefits of an aluminum limit truly outweigh the significant costs associated with its implementation? Given that aquatic life is thriving in the area and there have been no reported mass kills, the proposed limit appears unnecessary. The economic burden of such a limit could divert valuable resources from other essential environmental initiatives that would yield greater benefits.

In 2024, the USGS reported that the Merrimack River at Goffs Falls, below Manchester, NH, had an average daily mean flow of 5,432 cubic feet per second (cfs), which is roughly equivalent to 4,359 million gallons per day (mgd). The median “WET Ambient” aluminum concentration published in the "Appendix Allenstown-Monitoring Data Summary" is 0.1115 mg/L. This translates to approximately 4,050 pounds of aluminum in the river, calculated as $(4,359\text{mgd}) \times (0.1115\text{mg/L}) \times (8.34\text{lbs/gal})$, attributed to upstream wastewater discharges or the natural occurrence of aluminum in the receiving water.

The Allenstown wastewater facility has a maximum design flow of 1.5 mgd. Assuming the plant operates at maximum capacity, it discharges approximately 1.0 pound of aluminum, calculated as $(1.5\text{mgd}) \times (0.083\text{mg/L}) \times (8.34\text{lbs/gal})$. Notably, this 1.0 pound of aluminum represents only 0.0247% of the 4,050 pounds occurring naturally in the river.

Given these considerations, I respectfully request the removal of the 0.118 mg/L aluminum limit from Allenstown’s monitoring requirements. Alternatively, if that request is denied, I ask that the “Discharge Limitation” be amended to a “Report” requirement instead. This approach would better reflect the minimal impact of the facility's discharge while still ensuring transparency and accountability. I would also request a provision stating that anti-backsliding requirements should not apply to any aluminum limit, considering that revisions to New Hampshire Water Quality Standards (NH WQS) may occur in the future based on current scientific findings. It is my hope that New Hampshire will revise its standards accordingly, similar to the newly revised 2021 Massachusetts WQS, which has been approved by the EPA.

I must emphasize the impracticality of imposing an aluminum limit on the Allenstown Wastewater Treatment Facility, especially given that our facility's discharge contributes a mere 0.0247% of the total aluminum present in the Merrimack River. The median daily maximum for aluminum in Allenstown’s effluent is 0.083 mg/L, which is well below levels that would cause or contribute to violations of water quality standards. Given that aquatic life is thriving in the area and there have been no reported adverse impacts, the proposed aluminum limit is not only unreasonable but also economically impractical.

Response 90

EPA understands that the Allenstown discharge is only a small contribution to the overall aluminum in the river. However, CWA § 301(b)(1)(C) and 40 CFR 122.44(d)(1)(i)-(iii) require that any discharger that has the reasonable potential to cause or contribute to an exceedance of water quality standards must include an effluent limitation.

However, based on this comment as well as the other comments received on the Draft General Permit, EPA has reevaluated the need for this aluminum limit. Specifically, Comment 17 above provides updated clean sampling data upstream of the Hooksett WWTF. In Response 17, EPA confirms that this additional data (used in combination with other ambient data upstream of Hooksett) results in a finding that there is not reasonable potential for the aluminum limit at Hooksett. Given that Allenstown is just a short distance upstream of Manchester, EPA considers it appropriate to use this same

clean sampling data to supplement the existing data upstream of Allenstown. Including this more recent, clean, ambient sampling data (along with the previous data upstream of Allenstown) resulted in an updated ambient median value of 92 µg/L. All else being equal, the resulting downstream concentration is 92.4 µg/L, which is below 106 µg/L (*i.e.*, the criterion of 118 µg/L based on the acid soluble fraction times 0.9 to reserve 10% assimilative capacity). Therefore, the updated calculation does not show reasonable potential for aluminum and the limit has been removed from the Final General Permit.

EPA finds, in this case, that using data upstream of Hooksett (*i.e.*, downstream of Allenstown) as upstream ambient data is a conservative assumption given that it already includes the Allenstown effluent. In other words, it is conservative because it is double counting the effluent from Allenstown and still results in a finding that there is not reasonable potential for a limit.

Comment 91

pH+ Limits

Allenstown's pH+ limits have consistently been set between 6.0 and 9.0 standard units (SU) in various permits, including the 2011 POTW general permit, the draft 2021 small WWTF general permit, and their current 2021 individual permit. All drafts and final issued permits prior to the 2024 medium general permit have maintained this pH+ limit of 6.0 to 9.0 SU. Notably, the segment of the Merrimack River to which Allenstown discharges does not exhibit a pH+ impairment. This indicates that the existing discharge limits of 6.0 to 9.0 SU have not adversely affected the receiving water's pH+.

Currently, regulators have informed Allenstown that a modification to the pH+ limits will not be granted until a pH+ study is completed in accordance with NHDES "policy." However, the historical data should suffice to meet the study requirements, as it reflects real-world scenarios rather than controlled lab conditions. Upon requesting a copy of this "policy," it appears to be merely a set of procedures or instructions from an unknown author on how to conduct the study, rather than an official policy endorsed by the NHDES commissioner or permit writer. Given that this "policy" has not been enforced over the past decade, I am respectfully requesting that Allenstown's pH+ limits be adjusted from 6.5 to 8.0 SU back to the original range of 6.0 to 9.0 SU.

Response 91

See Response 9.

Comment 92

Pollutant Scans

On page 23 of the document titled "Allenstown_Authorization_NHG59001," section I, Submittal of Facility-Specific Information, states: "The Permittee shall submit the following facility-specific information which EPA has deemed necessary for the development of the next reissuance of this General Permit." The document outlines seven requirements, with the seventh stipulating: "Perform three pollutant scans for the pollutants listed in Attachment I, using a representative composite sample once per quarter during the final three full calendar

quarters of the five-year permit term. The results of all three scans shall be summarized and submitted using the form in Attachment I.”

The initial requirements “deemed necessary” by the EPA are fair and reasonable. However, since the pollutant scan is an annual monitoring requirement for the third quarter over the entire five- year permit term, this would result in a total of seven pollutant scans for the EPA to consider when reissuing a new permit. Given that the EPA had zero pollutant scans available for the current draft permit, requiring seven scans is excessive.

Although the process by which the EPA determines what is “deemed necessary” is unclear, I propose reducing the total number of pollutant scans for the five-year period from seven to three. This adjustment reflects a substantial enhancement in our monitoring efforts, effectively increasing the number of pollutant scans from zero to three, which represents a threefold increase in testing capacity. This change would provide the EPA with significantly more data than was available for the current draft permit, representing a reasonable compromise that would reduce costs while still supplying sufficient information to the EPA.

Response 92

First, EPA disagrees that the previous individual permits did not require any pollutant scans for the WWTFs eligible for coverage under this General Permit. Rather, most (if not all) of the eligible WWTFs would have been required to submit the results of 3 pollutant scans with their individual permit reapplication. Having said that, EPA agrees that increasing from 3 to 7 over the 5-year permit term is likely not necessary. Rather, EPA finds that the annual pollutant scan will provide sufficient information for EPA to ensure the discharges are not causing any violation of water quality standards with respect to those pollutants. EPA notes that increased monitoring may be necessary on occasion based on more specific concerns that may arise in the future.

Therefore, the seventh requirement in the list in Part II.I has been removed from the Final General Permit.

Comment 93

Continuous Monitoring for TRC and pH+

Allenstown requests a provision to address situations where continuous monitoring for Total Residual Chlorine (TRC) or pH+ cannot be achieved. In these rare instances, Allenstown anticipates they would continue to submit results from daily grab samples, as has been done in the past, to ensure compliance with permit requirements.

Response 93

EPA agrees that this is likely allowable during periods of maintenance, etc., but notes that the Permittee should work with EPA’s Enforcement and Compliance Assurance Division (ECAD) on a case-by-case basis.

Comment 94

Ambient Monitoring

The EPA has implemented new ambient monitoring requirements for wastewater treatment facilities (WWTFs) under this draft permit. Operators are responsible for diligently monitoring the effluent quality according to the outlined parameters. However, these facilities lack control over the quality of the receiving waters. Adding the responsibility of monitoring water quality in the vicinity of the discharge could leave facilities vulnerable to legal action for changes in water quality that are beyond their control. Therefore, I am requesting the removal of the ambient phosphorus requirement and the ambient pollutant scans from Allenstown's site-specific permit.

Response 94

While some Permittees already had an ambient phosphorus monitoring requirement in their current permit, EPA recognizes that this requirement is new for several of the Permittees under this General Permit. EPA confirms that this requirement is necessary to characterize the receiving water with respect to phosphorus and to ensure that the discharges do not violate water quality standards downstream in the future. However, EPA clarifies that all such ambient requirements are merely monitoring and reporting requirements (not effluent limitations). As such, the Permittees cannot be subject to allegations of effluent limitation violations for changes in ambient/upstream water quality that are indeed beyond their control based on these provisions.

Hypothetically, if upstream levels of phosphorus were to increase, EPA would need to evaluate this data and, if necessary, reissue or modify the General Permit with more stringent phosphorus limits. Only then would the Permittees be required to reduce their effluent phosphorus levels.

Comment 95

Closing

The extensive monitoring and reporting requirements outlined in the draft permit threaten the operational viability of our facility and could lead to significant increases in user fees, disproportionately affecting low-income households and small businesses in our community. It is crucial for the EPA to conduct a comprehensive cost-benefit analysis to weigh the economic burdens of compliance against the negligible environmental benefits of such stringent limits.

Additionally, I urge the EPA to reconsider the pace at which it is implementing new regulatory requirements. The current approach is overwhelming for both operators and communities, making it increasingly difficult to adapt to the rapid changes. A more measured and thoughtful approach to regulation would allow for better compliance and ultimately lead to more effective environmental protection.

I strongly urge the EPA to remove the aluminum limit entirely, adjust the pH limits back to the original range, and reduce the frequency of pollutant scans. These changes are essential to ensure that the permit is both economically feasible and aligned with the realities of our facility's impact on the environment.

I eagerly await a prompt and serious response to these critical issues, as the future of our facility and the well-being of our community depend on it.

For your reference, I have attached the USGS gauge data for the Goffs Falls location on the Merrimack River. This data (from the USGS website) provides valuable context regarding the river's flow and the natural aluminum concentrations present, which further supports my arguments regarding the proposed aluminum limit.

Daily Mean Discharge, cubic feet per second Merrimack River at GOFFS FALLS

DATE	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024
1	11300	9,260	8,290	18,100	8,640	3,080	2,800	2,620	1,460	1,390	1,820	2,830
2	9580	8,620	7,630	16,100	8,380	2,740	3,010	2,550	1,450	1,160	1,680	2,310
3	8,210	8,410	8,800	14,800	7,860	2,490	2,040	3,320	1,500	1,180	1,510	2,030
4	8,250	7,900	10,800	14,900	7,370	2,460	1,790	3,080	1,460	661	1,520	1,900
5	7,600	7,490	12,300	14,900	6,840	1,970	2,150	2,480	950	979	1,230	1,860
6	7,220	6,850	14,000	14,800	7,720	2,250	2,000	3,160	878	929	1,460	1,810
7	7,030	6,780	21,800	15,000	10,100	2,080	1,860	3,640	1,140	963	1,440	1,570
8	6,790	6,560	25,600	15,200	9,490	2,200	1,680	3,120	1,150	1,150	1,370	1,610
9	6,870	6,460	24,600	16,000	8,680	2,430	1,610	3,020	1,090	1,030	1,300	1,630
10	11,900	6,300	24,200	16,400	8,040	2,820	1,360	3,650	1,120	1,040	1,230	1,730
11	17100	6,330	25,900	17,000	7,160	3,010	1,500	5,790	1,090	1,020	1,250	2,340
12	17,400	7,340	25,600	20,300	6,360	1,800	1,350	5,350	1,000	992	1,230	6,350
13	17,000	7,630	22,900	27,100	5,790	2,230	1,810	3,840	972	900	1,230	12,400
14	19,900	7,130	18,100	26,000	5,090	2,200	1,580	2,940	988	1,490	1,190	14,100
15	18600	6,460	15,200	26,900	5,010	2,170	1,380	2,400	976	1,560	1,210	8,850
16	15,600	5,930	14,900	25,800	5,070	2,140	1,300	2,410	870	2,360	1,120	5,660
17	12500	6,090	14,700	23,500	4,900	2,110	1,470	2,320	816	2,950	1,020	5,230
18	10500	5,600	13,200	18,600	4,560	1,920	1,430	2,250	775	2,410	989	5,630
19	9690	5,500	12,300	14,000	4,470	1,620	1,480	2,170	773	2,040	1,080	6,940
20	8890	5,330	10,800	12,000	4,190	1,730	1,090	2,630	776	2,030	966	6,780
21	8300	4,920	9,910	11,000	4,030	1,910	1,350	3,190	825	1,600	1,140	6,130
22	8110	4,950	9,270	10,100	4,210	2,020	1,380	2,730	819	1,510	1,600	4,740
23	8250	5,070	9,260	9,190	3,930	2,680	1,200	2,450	606	1,110	2,100	3,710
24	8,180	5,000	10,900	8,490	3,430	3,960	1,490	2,180	634	909	2,570	3,460
25	8340	4,780	11,600	7,900	3,220	5,180	2,570	2,110	792	894	2,750	3,490
26	9,890	4,460	11,200	7,420	2,670	4,200	2,170	1,800	1,060	1,100	2,300	3,480
27	12,800	4,730	10,700	6,920	2,800	3,050	2,000	1,620	1,900	1,030	2,080	3,240
28	12900	5,050	13,300	6,880	3,200	2,480	1,620	2,030	3,450	1,020	2,390	3,060
29	12300	6,320	20,400	6,940	4,880	1,960	1,360	1,900	2,240	1,020	2,830	3,190
30	11,200		22,600	7,920	4,500	2,030	989	1,530	1,620	1,350	2,800	3,790
31	9990		20,600		3,340		1,610	1,510		1,560		6,500
COUNT	31	29	31	30	31	30	31	31	30	31	30	31
MAX	19900	9,260	25,900	27,100	10,100	5,180	3,010	5,790	3,450	2,950	2,830	14,100
MIN	6790	4,460	7,630	6,880	2,670	1,620	989	1,510	606	661	966	1,570
AVERAGE	11090	7326	14477	16434	4500	1825	1595	2767	773	979	1106	2310
5432												

Response 95

See Responses 88 through 94.

N. Comments from William M. Manzi, III, River Town Manager, Town of Seabrook, on February 12, 2025.

Comment 96

On November 13, 2025, Region 1 of the United States Environmental Protection Agency (EPA) issued Draft NPDES Permit No. NHGP590000 (the draft permit) to all medium-sized wastewater treatment facilities (WWTFs) with a design flow of between 1 and 5 million gallons per day (MGD). The Seabrook, New Hampshire WWTF is eligible for coverage under this permit upon authorization. The Town of Seabrook, New Hampshire (the town) utilized the comment period to evaluate the proposed terms and develop comments in response to the requirements set forth in the draft permit.

The Town owns and operates a wastewater treatment facility WWTF that discharges treated effluent to the Gulf of Maine of the Atlantic Ocean. The WWTF collects and treats domestic, commercial, and industrial wastewater throughout the town. The system is a separate system as there are no combined sewer stormwater structures.

The WWTF has a design flow of 1.8 MGD to treat collected wastewater via an extended aeration process. Process flow begins with all flow conveyed to the influent screw pump vault at the headworks building. Flow continues through mechanical screening and grit removal, secondary treatment via dual train oxidation ditches, secondary clarification, and disinfection via chlorination. Dechlorination occurs at the Route 286 Pump Station, which conveys effluent flow to the ocean outfall.

Regarding the draft permit, we formally request that EPA take under consideration the following comments:

Response 96

EPA acknowledges this comment and has responded to the issues raised below.

Comment 97

Whole Effluent Toxicity Testing

The town's draft permit authorization indicates that Whole Effluent Toxicity (WET) Testing be performed monitored and reported quarterly. The Clean Water Act Section 403(c) Ocean Discharge Criteria Evaluation, issued in March 2024, provides a detailed assessment of whether the WWTF discharge will or will not cause "unreasonable degradation."

The evaluation considered 10 guidelines to make this determination, including verification of the WWTFs dilution factor of 36, developed through the scientific determination of the WWTFs substantial available dilution and subsequent dispersion into the receiving water. The summary in Part II. Criteria Evaluation indicates that "the facility has been able to comply with the toxicity

requirements in the past and is expected to be able to continue to operate in compliance in the future." In addition, the evaluation concluded that "based on available information, EPA finds that this discharge will not cause unreasonable degradation of the marine environment." This was based on an evaluation of 10 guidelines.

WET testing is another costly monitoring burden and, given the WWTFs performance in regard to years of prior WET Testing, expends funds that can be applied to other draft permit requirements. Given the above conclusions and demands for vital operational funds, the town requests that:

1. Modify draft permit Part I1.A.1. to require WET Testing once annually.

Response 97

See Response 73.

Comment 98

Total Kjeldahl Nitrogen, Nitrate + Nitrite, and Total Nitrogen

The draft permit includes new monitoring requirements for these parameters under Part II.A.1. Section 3.1.8.1 of the Fact Sheet relates to Total Nitrogen. This section references Total Maximum Daily Loads (TMDLs) and applicable Waste Load Allocations (WLAs) in estuaries such as Long Island Sound, Narragansett Bay, and Buzzards Bay. It also provides additional details for WWTFs discharging into the Long Island Sound watershed. It also references the Great Bay watershed and WWTFs discharging to it and subject to the permit. These water bodies have been the focus of multiple studies and regulatory and legal actions to justify monitoring requirements and numerical discharge limitations.

The Fact Sheet also alludes to the Merrimack River estuary and the Gulf of Maine. These water bodies have no TMDL and associated WLA, as the Fact Sheet states. The Fact Sheet instead indicates that EPA has "concerns about nitrogen discharges" in these water bodies and they "may be experiencing nitrogen enrichment."

These draft permit requirements total over 70 composite samples that would need to be collected and analyzed annually. The cost associated with these requirements are burdensome to the town and require resources that can be better applied to necessary operational, safety, and compliance issues. It is accurately acknowledged that the WWTF discharges to the Gulf of Maine. However, there is no reference to a scientific study that correlates the town's WWTF discharge to the general Fact Sheet "concern" about nitrogen discharges within this approximately 36,000 square mile marginal sea. Accordingly, the town requests that EPA revise the draft permit as follows:

1. Remove Total Kjeldahl Nitrogen, Nitrate+ Nitrite, and Total Nitrogen monitoring requirements in their entirety from the town's authorization.

Response 98

EPA agrees with this comment and is not aware of any studies highlighting evidence of nutrient enrichment in the vicinity of Seabrook's discharge to the Gulf of Maine. Therefore, this monitoring requirement for Seabrook has been removed from the Final General Permit.

Comment 99

Aesthetics

The draft permit requires that WWTFs conduct monthly aesthetics observations consisting of "visual inspection of the receiving water in the vicinity of the outfall and report any changes that may be caused by the discharge" for a wide variety of subjective characteristics. In addition, this requirement applies to taste or odor complaints and how a permittee will address these complaints. There is also an annual reporting requirement.

The town has significant concerns related to this new imposition. This constitutes an additional series of assessments and reports associated with the condition of the receiving water well beyond the outfall and regulated discharge point. WWTFs have no control of receiving water quality, and would require staff to take on the added responsibility of policing water quality in the vicinity of the discharge. In addition, this requirement presents a safety risk and requires long-term capital investment of watercraft and associated PPE, specialty staff training and licensure' and may require the town to procure additional insurance.

We request that EPA revise the draft permit as follows:

1. Remove Aesthetic Monitoring requirements in their entirety from the town's authorization. This would also be consistent with the Region 1 Final Medium Wastewater Treatment Facilities General Permit for Massachusetts, Permit Number MAG590000. Such a revision would be also consistent with the intent of section E of the New Hampshire State Certification which, in accordance with 40 CFR 124.53, states that the reduction in aesthetic monitoring would not make the draft permit less stringent and would not violate State law and New Hampshire water quality standards because the requirement does not address effluent water quality, but only the receiving water quality which the permittee has no direct control beyond the specified discharge.

Response 99

See Response 54.

In the case of Seabrook, EPA recognizes that the outfall is significantly offshore. In Response 54, EPA suggests making these observations from the shore (perhaps with the assistance of binoculars) rather than capital investment in a boat. In the case of Seabrook, EPA recognizes that even this may not allow for proper observation of the vicinity of the outfall from the shore and suggests that a simple drone with camera may be more appropriate and cost effective if a boat is not available.

Comment 100

Pollutant Scan

The draft permit requires the town to perform an annual Pollutant Scan of more than 100 pollutants listed in Attachment I that ultimately total 12 samples for effluent and ambient samples throughout the permit period. A single pollutant scan is estimated to have a 2025 cost of more than \$1,000.

As an alternative, the town requests that EPA revise the pollutant scan monitoring requirements in the draft permit to align with the Region 1 Final Medium Wastewater Treatment Facilities General Permit for Massachusetts, Permit Number MAGP590000. Specifically:

1. Eliminate Annual Pollutant Scan Requirements. Remove the requirement for annual pollutant scans of effluent and ambient samples.
2. Reduce Pollutant Scans to Three Per Permit Term. Revise Part II.I to require three effluent pollutant scans, conducted once per quarter in the final three full calendar quarters of the 5-year permit term.
3. Remove Ambient Pollutant Scan Requirement. WWTFs are not responsible for ambient water quality; accordingly, remove requirements to conduct ambient pollutant scans.

These revisions would eliminate expensive monitoring costs, align with a directly comparable and recently issued general permit, and enable WWTF management to apply these cost savings to other compliance and operational concerns.

Response 100

See Responses 10, 52 and 92.

Comment 101

Benthic Survey

The draft permit requires that the town perform a benthic survey. Part II.H.6. includes language and parameters of the survey. It is understood that New Hampshire has proposed changes to these requirements to link the requirement to a known and understood negative impact caused by the discharge. However, this introduces several concerns, as follows:

1. High Cost and Financial Burden. The town has procured initial estimates for a benthic survey focused on the impacts of the WWTF discharge on aquatic life in the benthic environment. It is likely this survey will approach \$100,000. This is because the town's discharge is located approximately 2,100 feet offshore at a depth of 30 feet below Mean Sea Level. There is no indication of whether EPA or the state would provide funding assistance or if the cost would be fully borne by the community.
2. Need for Clarity Between Effluent Conditions and Survey Triggers. It is unclear whether there is a correlation between effluent parameters such as Dilution Factor and the need for a benthic survey. The town's Dilution Factor as stated in the draft permit is 36, a change from the calculated 72 as issued in the town's 2010 NPDES permit. The outfall is designed to distribute effluent flow across a network of 20 diffuser ports equipped with

pinch valves, further increasing dilution in this ocean discharge. It is unclear whether these conditions designed to increase dilution in the receiving water are sufficient to preclude performance of this very costly survey.

3. Unclear Triggers for Survey Requirement. The conditions that would constitute a "known or suspected detrimental impact" on downstream benthic communities are not defined.
4. Lack of Notification and Timeline Clarity. The draft permit does not specify how the town would be notified of the requirement or how much time would be provided to complete a survey, which may cause a lack of funding that prevents compliance.

The town requests that EPA work with NH DES and consider how to revise the draft permit to account for the following:

1. Evaluate water quality standards, discharge characteristics, and dilution factors that best correlate to benthic community health and apply exclusions to this requirement for permittees known to meet them.
2. Define specific effluent-based criteria that would trigger a survey.
3. Clarify notification procedures and provide flexibility in associated compliance schedules.
4. Consider incorporating clear, codified survey triggers into New Hampshire water quality regulations.
5. Identify potential funding support for communities required to conduct surveys.

Response 101

In response to similar comments received by NHDES on the draft 401 certification, the NHDES 401 certification provides additional clarity regarding several of the commenter's concerns (such as triggers, notifications and timelines). The final 401 certification includes the following updated statement regarding the benthic survey requirement:

"If notified in writing by NHDES or EPA that benthic deposits from the discharge are known or suspected to have a detrimental impact on downstream benthic communities, the Permittee shall conduct a benthic survey within one year of the notification to assess those impacts on aquatic life in the benthic environment. Visual observations, benthic sample results, or long-term permit limit exceedances could indicate a potential change in either the sediments or settleable solids downstream of the outfall as compared to upstream of the outfall. Such a change could indicate that the facility's effluent is having a detrimental impact on the downstream benthic community health."

NHDES also provided the following justification for this statement in its final 401 certification:

"Because the permit includes effluent limitations on parameters such as total suspended solids and metals, it is already expected to be protective of the benthic community in the vicinity of the facility's outfall and meet surface water quality standards, specifically those in Env-Wq 1703.03(c)(1)(a) and 1703.08. NHDES' position is that a benthic survey should only be required if benthic

deposits from a discharge are known or suspected to have a detrimental impact on a downstream benthic community and more specific benthic data is necessary to determine if additional protections are needed.”

In response to this comment (and others throughout this Response to Comments) regarding the benthic survey requirement, EPA acknowledges that there is uncertainty regarding the precise correlation between dilution factor and potential impacts to the benthic community. While EPA expects that facilities with a smaller dilution factor will have a higher potential to impact the downstream benthic community, EPA also acknowledges that benthic surveys can be expensive (especially in larger rivers typically corresponding to higher dilution factors). EPA agrees with the commenters as well as with NHDES that the requirement to conduct such an expensive benthic survey should be reserved for WWTFs that are “known or suspected to have a detrimental impact” on the benthic environment. Therefore, EPA has revised this condition in Part II.H.6 of the Final General Permit to only be triggered based on the language above. EPA has also added the words “potential” and “from the discharge” to clarify that the permit condition is designed to “assess potential impacts from the discharge on aquatic life in the benthic environment.”

EPA finds that this change will ensure that only the discharges most likely to have a detrimental impact will be subject to this requirement. Further, EPA expects that this change will generally limit the applicability of benthic surveys to facilities with very low dilution factors into relatively small receiving waters (given that the triggers of the study and potential detrimental impacts are more likely for those discharges). EPA highlights that any benthic surveys that may be conducted in these relatively smaller receiving waters will be at a relatively lower cost (compared to larger receiving waters with more deeply submerged outfalls, such as Seabrook, which would be much more expensive to conduct and are much less likely to be triggered based on the revision above).

Finally, EPA notes that the results of any benthic surveys that are conducted during the permit term will inform EPA’s future permitting decisions in several ways. On the one hand, if the results demonstrate that the discharge is causing detrimental impacts to the benthic environment, EPA may reopen and modify or reissue the General Permit with more stringent conditions to ensure the permit is protective of water quality standards for the benthic environment. On the other hand, if the results demonstrate that even these WWTFs are not causing any detrimental impacts, EPA may remove this condition in the next permit term.

Regarding cost/funding, see Response 1.

Comment 102

Adaptation Planning

EPA has received comments on multiple previous draft permits that included the requirements found in Part II.C.1. These comments have addressed the significant burden Adaptation Planning requirements apply to permittees due to its comprehensive scope, rigid timelines, and lack of

financial support. These concerns remain relevant and applicable as a response to the rationale provided in Appendix D of the draft permit Fact Sheet.

It is important to also focus on the details of Component 3: Implementation and Maintenance Schedule found in Part II.C.1.a. Given the requirements and completeness of a permittee's Adaptation Plan and the nature of procuring funding at the town level, the 48-month timeline is too restrictive. Competing needs of a WWTF and collection and conveyance systems, as well as those across all aspects of municipal government, make it difficult to achieve strict compliance with such mandates and prevent officials from designating funds in a manner that best protects all constituents through investment in infrastructure systems, social service programs, public safety, etc.

Given these challenges, the town requests that Part II.C.1.a. language be modified to allow permittees to be flexible in implementing and maintaining their adaptive measures so they may balance all infrastructure investments.

Response 102

See Response 2.

Comment 103

PFAS and Adsorbable Organic Fluorine Monitoring

Part II.A. and Footnotes 14 and 15 of the draft permit include requirements for testing PFAS and Adsorbable Organic Fluorine (AOF) for effluent, influent, and sludge; however, these testing methods have not been adopted nationally. The EPA rulemaking process indicates that final action for these methods is still "To Be Determined." Given this status, PFAS and AOF testing does not at present align with EPA guidance. Additionally, the proposed monitoring requirements impose significant financial and operational burdens on affected WWTFs, particularly smaller facilities that are not included in EPA's ongoing national study.

Accordingly, the town requests the following changes to the draft permit:

1. Delay Implementation Until Lab Capacity Increases. It is widely acknowledged by permittees and regulators that there is limited availability of certified laboratories for PFAS and AOF testing. This deficiency not only negatively impacts permittees seeking to comply with monitoring and reporting requirements but also drives up the cost of compliance. The town has received an estimate of approximately \$40,000 for annual testing. These are in 2025 dollars and thus are expected to increase as a result of both overall demand for said testing and inflation. This requirement should not take effect until such time as an independent analysis indicates that sufficient laboratory capacity has become readily available to all impacted permittees.
2. Revise Footnote 2. Remove references to PFAS and AOF testing from this footnote until these methods are officially promulgated under 40 CFR Part 136. Currently, no finalized Clean Water Act (CWA) methods exist for these parameters and removal aligns with the still-pending status these methods.

3. Remove Footnotes 14 and 15. These footnotes require testing using Methods 1633 and 1621, despite recognized limitations. Method 1621 is a speculative test with known interferences, including non-PFAS compounds.
4. Align with National EPA Study Parameters. The EPA study on wastewater influent PFAS is limited to WWTFs with a capacity of 10 MGD or larger and serving populations of 50,000 or more. The draft permit extends these testing requirements to smaller facilities, many of which are eligible for coverage under the draft permit but do not meet the criteria of the national study. This requirement should be removed to align with EPA's intended phased approach.
5. Subject to the above comments, align the measurement frequency of PFAS in sludge to that of the pollutant scan by changing the requirement to one sample per year. This is a revision from the one sample per quarter requirement in the draft permit.

In summary, the town's requests for draft permit changes reflect our concerns related to exceptionally challenging operational, compliance, and financial strains on municipalities; considers scientifically-based analysis and guidance, brings a measure of reasonableness to all permit requirements, and ensures that monitoring requirements are based on sound methodologies.

The town is confident that EPA will consider each comment in its entirety and fully recognizes that Seabrook has worked for decades to be a steward of the environment and approaches our day-to-day responsibility to protect our water resources for today's residents and future generations with the utmost seriousness and diligence. These comments have been submitted via email in a timely manner, in advance of the February 12, 2025, close of the comment period.

Response 103

See Responses 6 (cost), 11 (methods and footnotes), 12 (national study), and 50 (lab availability).

O. Comments from Robert M. Belmore, City Manager, City of Somersworth, on February 12, 2025.

Comment 104

Ammonia-Nitrogen Limit.

The revised limit assumes the Salmon Falls River water temperature is 25°C in May and October.

- We request that the duplicate reference to May and October be removed to reflect dates November 1 through April 30, and May 1-31 and Oct 1-31 in the Part II.A.1 Table.
- We request that EPA refrain from evaluating May and October as separate monitoring periods until sufficient ambient temperature data is collected to support this revision.
 - o If EPA does elect to proceed with evaluating May and October as a separate monitoring period, we request that historical site-specific monthly water

temperature data is used to perform reasonable potential analysis and to develop these limits.

- o If EPA does elect to proceed with evaluating May and October as a separate monitoring period, and historical data is used to develop these limits, we request that May and October are evaluated separately, not together as a single "shoulder season."

Response 104

EPA agrees that the duplicate reference to May and October in Part II.A.1 of the Somersworth draft authorization was a typographical error, and it has been corrected as described in the comment.

Regarding temperature, EPA evaluated the ammonia discharge from Somersworth based on two seasons: May 1 through October 31 and November 1 through April 30. Based on the lack of site-specific temperature data, EPA applied default temperatures of 25 deg C and 5 deg C, respectively (based on EPA's understanding of typical water temperatures in NH). EPA notes that this comment does not provide any site-specific temperature data, so EPA is unable to update the analysis at this time. However, if the Permittee collects site-specific temperature data in the future, this would qualify as "new information" which could allow backsliding of these limits at that time. See CWA 402(o)(2)(B)(i).

Regarding the request to evaluate May and October separately, EPA notes that the Somersworth individual permit already included an effluent limit of 143 lb/day (equivalent to 7.1 mg/L at design flow) from June 1 through September 30 and an effluent limit of 13 mg/L from October 1 through May 31. In accordance with the methodology described in Appendix A of the Fact Sheet, EPA compared these existing limits to the limits that would be necessary under current environmental conditions. In essence, EPA evaluated each month independently and determined that the limits in May and October needed to become more stringent but the limits in the other 10 months could be carried forward. Therefore, EPA confirms that these months were already evaluated separately and this comment does not result in any change to the Final General Permit.

Comment 105

Aluminum Limit

Aluminum Rulemaking Status in New Hampshire. The Draft NH MGP for Somersworth includes an effluent total recoverable aluminum average monthly discharge limit of 87 µg/l (ppb). This discharge limit is equivalent to the freshwater chronic criteria established in NH Env-WQ 1703.21 for acid soluble aluminum of 87 ppb. This chronic criterion is derived from the Ambient Water Quality Criteria for Aluminum - 1988¹, based on the results of toxicity testing of aluminum to select aquatic life. While the criterion was established with the goal of protecting aquatic life and was developed using the best available toxicity testing data at its time, there has been longstanding and significant regulatory controversy regarding the scientific basis for the criterion and its applicability to varying surface water chemistries (i.e. pH and hardness). As it lacks

consideration of site-specific water chemistry, the criterion seemingly fails to appropriately characterize the bioavailability of aluminum.

The 1988 aluminum chronic criterion was superseded in 2018 when the EPA updated its national recommended ambient water quality criteria for acute and chronic aluminum aquatic life exposure in fresh water to consider the bioavailability of aluminum based on receiving water aquatic system chemistry². This new EPA guidance recommended the use of Multiple Linear Regression (MLR) models to derive key statistics and issued an Aluminum Criteria Calculator that uses water chemistry parameters (pH, DOC, and total hardness data) as inputs to calculate aluminum criteria unique to the permit site. Example calculations provided by the EPA for a range of pH, hardness, and DOC values typical in New Hampshire freshwater systems show that NHDES' current acid soluble aluminum criteria are generally more stringent than the proposed chronic criterion³. More specifically, the MassDEP⁴ used the EPA MLR Aluminum Criteria Calculator to derive aluminum criteria for 15 river basins and coastal drainages in Massachusetts, several of which originate in or pass through New Hampshire. In all cases, the chronic criteria calculated using EPA's MLR model was considerably higher than NH's current criteria (87 ppb).

In August 2024, NHDES issued draft changes to Env-WQ 1703.22(s) that allows for the determination of total aluminum water quality criteria considering waterbody specific pH, DOC, and hardness using EPA procedures with a defined approach following its Draft Aluminum Criteria Implementation in NPDES Permitting⁵. This approach is not without its technical issues, but it represents one step closer to the current EPA's national guidance². Our understanding is NHDES has not yet promulgated changes to Env-WQ 1703.22 to incorporate this updated aluminum guidance into NH water quality standards. Even after these standards are adopted by the State, there will be additional time required for EPA Region 1 to formally approve these revisions. Given that both the MGP and aluminum standard regulatory processes are concurrent, there is a chance that the MGP will be finalized utilizing the current, outdated aluminum standard. This will have significant capital and operational cost impacts which may not provide any additional environmental benefit.

It is the permittee's expectation that, upon EPA's approval of the updated draft NH Water Quality Standards, this NPDES permit will be revised to reflect the scientifically-based new criteria. Given the extended timeline anticipated for NHDES to adopt EPA's national aluminum criteria calculator, several communities may be at risk of receiving an overly protective limit and be forced to modify their wastewater process with costly infrastructure upgrades, only to have this limit revised shortly thereafter if the new criteria is officially adopted by NH and EPA. Anti-backsliding should not prevent the implementation of a new aluminum limit because it will be based on new scientific information developed by the EPA utilizing site-specific water quality characteristics.

The City of Somersworth is understandably concerned that should the proposed more stringent aluminum discharge limit take effect during the aluminum promulgation process, the EPA would not allow a relaxation or removal of the limit to meet site-specific, scientifically backed aluminum criteria.

Given NHDES' progress on adopting the 2018 EPA revised aluminum criteria, the City respectfully requests that EPA and NI-IDES not establish a new limitation using the superseded 1988 standard. The City shares the same goal as EPA and NI-IDES to protect aquatic life and meet effluent requirements that have been developed based on the best available science and that most accurately quantify the bioavailability of aluminum in site-specific conditions. The overarching goal of environmental regulation should be to balance environmental protection with practicality, ensuring that efforts to reduce pollution are based on real and known risks at specific waterbodies. A one-size-fits-all approach that ignores these factors will result in economic burdens to communities without providing a proportional environmental benefit. For these reasons, the City requests that the 87-ppb limit be removed from the draft permit and be replaced with a narrative requirement that is consistent with the 2018 EPA revised aluminum criteria. A narrative requirement is more appropriate in this application because of the scientific uncertainties surrounding the 1988 criteria and for the reason that it is still environmentally protective. The City requests that EPA and NHDES add the following language as a Special Condition:

"As NHDES is in the process of adopting revised criteria for aluminum, the permittee shall monitor and report total aluminum, pH, DOC, and hardness in the Whole Effluent Toxicity (WET) tests. This monitoring will continue through the term of the permit, until such time that the site-specific numeric standard for aluminum is adopted by the State and approved by EPA. At which time, a reasonable potential analysis for total recoverable aluminum will be conducted to determine if there is potential to cause or contribute to a violation of the newly approved aluminum criteria."

Aluminum Compliance Schedule. Similar to the timing of aluminum limits in this Draft New Hampshire MGP, the Mass DEP was in the process of revising its aluminum criteria and had recently promulgated updated Surface Water Quality Standards to reflect these criteria when the Draft Massachusetts MGP was released in 2021. In contrast to the short compliance schedule stated in the draft NH MGP that completely overlooks this ongoing rulemaking process, the EPA provided specific language in the Mass MGP Fact Sheet that allowed for an extended aluminum compliance period to reflect: (1) an undefined timeline for the Mass SWQS to go through the EPA review and approval process to be used in NPDES permits, (2) a caveat that Mass WWIFs could apply for a permit modification prior to the final aluminum effluent going into effect based on the new criteria if the Mass SWQS were approved by EPA, and (3) the opportunity for EPA to relax or remove the aluminum limit if warranted by the new criteria and a reasonable potential analysis without triggering anti-backsliding requirements⁶.

Based on discussion with NI-IDES staff and the previous timeline for EPA approval of Mass DEP SWQS for aluminum, we anticipate the following milestones for updated aluminum criteria in New Hampshire:

1. The public comment period for proposed changes to Env-WQ 1700 Surface Water Quality Standards (SWQS), which includes changes to the aluminum criteria, closed on November 22, 2024. A reasonable timeline of 6 months to 1 year for final approval of NH

Env-WQ 1700 through New Hampshire Joint Legislative Committee on Administrative Rules QLCAR) can be expected. This timeline assumes that there are no significant delays or concerns during the JLCAR review and approval process;

2. Assuming changes to NH Env-WQ 1700 are approved by JLCAR, we anticipate an additional 6 months to 1 year for review, approval, and use by EPA of revised NH Env-WQ 1700 SWQS in this NPDES MGP;
3. Once approved, NHMGP holders can start the process described in the NHDES Draft Aluminum Criteria Implementation in NPDES Permitting⁴. Assuming the permittee chooses to fulfill data requirements defined in the Implementation⁴ on an accelerated sampling effort, the permittee would need to:
 - a. Solicit bids and contract with a consulting firm- approximately 3 months.
 - b. Develop the sampling plan - approximately 2 months.
 - c. Receive approval from NI-IDES and EPA on the proposed sampling plan and analysis of the data - approximately 3 months.
 - d. Once the plan is approved by NI-IDES and EPA, the permittee will implement the accelerated sampling plan - 1 or 2 years.
 - e. The consultant would then use the collected information to calculate the instantaneous criteria values using the NI-IDES approach⁴ and approved aluminum calculator and compile findings into a report - approximately 4 months.
 - f. Submit report to NI-IDES and EPA for review and approval - approximately 6 months.
4. Once site specific criteria were developed, the permittee would submit a revision/ addendum to the NPDES permit, which would require review and approval by NHDES and EPA, a process that could take another 6 months to 1 year.

Overall, this process may take 5 years to complete, assuming no unforeseen delays. However, this timeline could be extended further if any setbacks arise. Given the structure of the general permit, there are 5 permittees that will be subject to the same compliance schedule. Potential delays associated with all 5 permittees navigating this process concurrently should be accounted for and considered in establishing an appropriate compliance schedule.

Additionally, the City of Somersworth is preparing for upgrades from an aluminum-based to an iron-based coagulant for phosphorus removal but is currently unable to complete this process change until an alkalinity feed system is added. These infrastructure changes are part of a larger WWTF upgrade which is currently in the design phase and is not anticipated to be substantially complete in construction until Fall 2028. The 2-year schedule of compliance to meet the monthly average total recoverable aluminum limit is insufficient to make these changes.

We respectfully request the EPA include a 5-year schedule of compliance that supports the timeline for NHDES and EPA to promulgate and/ or approve the revised aluminum criteria and allows the treatment process transition for an upgraded alkalinity and coagulant. This also allows time to fulfill the data requirements and to obtain approval for site-specific criteria to be approved. In addition, we also request EPA include specific language in this compliance period that references an anti-backsliding exception from the CWA § 402(o)(2)(A), "[a] permit with respect to which paragraph (1) applies may be renewed, reissued, or modified to contain

a less stringent effluent limitation applicable to a pollutant if substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation."

Based on the expected milestones described above, the City requests a 5-year schedule of compliance for the total aluminum limit to reflect the time which will be needed for NHDES and EPA to promulgate and/or approve the revised aluminum criteria, to develop a plan and fulfill the data requirements defined by NHDES for an accelerated sampling effort, and to obtain approval for site-specific criteria.

Further, the final authorization should contain updated language to reflect an opportunity to calculate site specific aluminum criteria based on EPA's final national guidance (2018). Specifically, we respectfully request EPA include language in the Aluminum Compliance Schedule to reflect the following approach used in New Hampshire and in Massachusetts during aluminum criteria promulgation:

"If during the compliance period after the effective date of the permit, New Hampshire adopts revised aluminum criteria, then the permittee may request a permit modification, pursuant to 40 C.F.R. § 122.62(a)(3), for a further delay of the effective date of the final aluminum effluent limit. If new criteria are approved by EPA before the effective date of the final aluminum effluent limit, the permittee may apply for a permit modification, pursuant to 40 C.F.R. § 122.62(a)(3), for a longer time to meet the final aluminum effluent limit and/ or for revisions to the permit based on whether there is reasonable potential for the facility's aluminum discharge to cause or contribute to a violation of the newly approved aluminum criteria. The final effluent limit of 87 µg/l for aluminum may be modified prior to the end of the compliance schedule if warranted by the new criteria and a reasonable potential analysis and consistent with antidegradation requirements. Such a modification would not trigger anti-backsliding prohibitions, as reflected in CWA 402 § (o) and 40 CFR § 122.44{1}."

¹ EPA (1988). Ambient Water Quality Criteria for Aluminum -1988. EPA 440/5-86-008.

² EPA (2018). Final Aquatic Life Ambient Water Quality Criteria for Aluminum 2018. EPA-822-R-18-001.

³ EPA (2017). Draft Aquatic Life Ambient Water Quality Criteria for Aluminum. EPA-822-P-17-001.

⁴ MassDEP (2019). MassDEP Presentation on proposed changes to Aluminum and Copper Criteria, February 2019. <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/201902-madeep-314cmr4-pres.pdf>

⁵ NH DES (2024). DRAFT - Aluminum Criteria Implementation in NPDES Permitting. October 17, 2024. DRAFT R-WD-24-19.

⁶ EPA (2021). Fact Sheet and Supplemental Information, Draft National Pollutant Discharge Elimination System (NPDES) Permit to Discharge to Waters of the United States Pursuant to the Clean Water Act (CWA). New England - Region 1, Boston, Massachusetts.

Response 105

See Responses 48 and 67.

Comment 106

Copper Limit

The Acute/Chronic Ce value (15.5 µg/L) does not appear to equal the 95th percentile WET testing data. We request EPA update their calculation using the 95th percentile WET value or identify source for the 15.5 µg/L.

The City of Somersworth's new copper effluent limits were calculated based on a water effect ratio (WER) of 1 (per Env-Wq 1703.22(d)), a hardness of 21.6 mg/1 CaCO₃ (per Env-Wq 1703.22(i), and a conversion factor of 0.96 (per Env-Wq Table 1703.2). The NH Administrative Code Env Wq 1703.22(d) provides procedures for site specific metals criteria to be calculated for differing water effect ratios⁷ or through use of a site-specific biotic ligand model, but language to this effect is not reflected in the Part II.H Special Conditions. Currently a biotic ligand model for calculating water effect ratios for copper is available and referenced in Env-Wq 1703.22(d) for freshwater systems⁸.

We respectfully request EPA recalculate the Reasonable Potential Analysis (RPA) and if a limit is applicable, modify Part II.H. Special Conditions to include a provision to develop metal limits based on a site-specific water effect ratio or a biotic ligand model that accounts for site-specific water quality criteria such as temperature, pH, dissolved organic carbon, alkalinity, cations, anions, and others.

⁷ EPA (2001). Streamlined Water-Effect Ratio procedure for Discharges of Copper, EPA-822-R-01-005.

⁸ EPA (2007). Aquatic Life Ambient Freshwater Quality Criteria - Copper, EPA-822-R-07-001.

Response 106

EPA agrees that the 95th percentile value was incorrectly calculated as 15.5 µg/L based on a typographical error in the data entry. Upon correction of the error, the 95th percentile value of the data is 9.6 µg/L, which does not trigger the need for a copper limit based on the reasonable potential analysis. Therefore, the copper limit for Somersworth has been removed from the Final General Permit.

Comment 107

PFAS Monitoring- Frequency

The PFAS monitoring requirements in this permit are excessively burdensome, especially compared to the Small WWIF General Permits issued in Massachusetts and New Hampshire in 2021 and the Medium WWIF General Permit issued in Massachusetts in 2022. Facilities in MA and NH that discharge <1 MGD covered under the Small WWIF General Permit are only required to monitor for six PF AS analytes in influent, effluent, and sludge and this monitoring is required half as frequently (2/year) as the proposed NH Medium General Permit (4/ year). Medium WWIF General Permit facilities in MA are required to monitor for 40 PF AS analytes in influent, effluent, and sludge using method 1633 on a similar schedule (1/Quarter), but are not required to test for adsorbable organic fluorine which is a significant addition to this already burdensome requirement.

The new PFAS testing requirements at Somersworth's Facility would add approximately \$10,000 of annual analytical costs. The NH Medium Permit requirements therefore represent the greatest frequency and highest cost burden to date in the region for PFAS testing, with no foreseeable off-ramp for reduced monitoring during the permit period. Considering there are 21

WWTFs that fall under this NH MGP where quarterly sampling of the influent, effluent, and sludge will be required, the State will generate 189 datapoints annually for PFAS analytes across New Hampshire and another 168 data points annually for AOF in the influent and effluent at these facilities. In addition, industrial users falling into PFAS use categories will also be sampled annually for PFAS analytes, representing hundreds of more datapoints annually.

While we understand data collection is needed at WWTFs to understand PFAS sourcing and outcome in our communities, we request that the extent of monitoring be capped at 2 years during the permit period. A 2-year monitoring cap will generate over 700 PFAS related datapoints in NH medium facilities and hundreds of other data points from industrial users in these sewersheds for use by EPA in understanding geographic and temporal fluctuations of PFAS. A 2-year monitoring cap would ease the financial burden, sampling effort, and reporting burden resulting from this requirement.

Response 107

See Response 49.

Comment 108

PFAS Monitoring - Analytical Methods

The New Hampshire Environmental Laboratory Accreditation Program (NHELAP) provides primary and secondary accreditation to environmental laboratories located within and outside New Hampshire to ensure sufficiently accurate, precise, and consistent results of analyses. Although both EPA Method 1633A and 1621 are recommended for use in individual CWA permits, both have undergone significant revision and validation over a short period. Method 1633A and 1621 were both proposed for approval at 40 CFR Part 136.3 in December 2024, however their approval remains pending. Currently, there are no labs accredited for Method 1633A and 1621 through the NHELAP. Only 7 labs are accredited through the NHELAP for Method 1633, all of whom are located outside New Hampshire.

Analytical laboratories serving New Hampshire POTWs already have extended turn-around times for PFAS analyses. The volume of samples to be generated through the PFAS monitoring requirements in this permit would place additional pressure on an already constrained commercial laboratory network. These laboratories serve numerous States, and this monitoring requirement would add thousands of samples per year from NH POTW and their industrial users. This will undoubtedly result in: (a) extended hold times, which reduces data quality and reliability, and (b) long turn-around times for data, which impacts data reporting requirements at these facilities.

We respectfully request a revision to the PFAS monitoring requirements to place monitoring on hold until (a) Method 1633A and 1621 are promulgated in 40 CFR Part 136, Guidelines for Establishing Test Procedures for the Analysis of Pollutants, and (b) the NHELAP can assess and accredit laboratories for these two EPA methods for New Hampshire State water quality monitoring purposes.

Response 108

See Response 50.

Comment 109

Pollutant Scan

The extended pollutant scan requirement defined in this permit is not consistent with pollutant scan requirements for Small and Medium WWIF General Permits issues in Massachusetts and New Hampshire in 2022 and 2023. Facilities in MA and NH that discharge <1 MGD are not required to scan for the pollutants listed in Attachment I. Medium WWIF in MA are only required to conduct three pollutant scans on effluent once per quarter in the final three full calendar quarters of the 5-year permit term.

1. What is the purpose of an annual pollutant scan in effluent, especially in situations where no new industrial users have been added to the City's sewershed?
2. Why is the City of Somersworth WWIF required to test for pollutants in ambient water, when the facility is not responsible for background pollutants in the receiving water body?

Additionally, the City is required to continue to participate in the Salmon Falls River Monitoring Program which includes ambient sampling requirements to support compliance with a Total Maximum Daily Load. This sampling protocol was developed specifically for the Salmon Falls River and in many cases redundant with the proposed pollutant scan.

The new pollutant scan requirement represents an added cost of some \$12,000 in additional monitoring costs over the permit period for the City. It also represents an additional \$2,000 per year in monitoring beyond what medium-sized facilities in MA are required to collect. WWIFs are not responsible for ambient pollutants, and effluent monitoring will be conducted at the end of the permit cycle, therefore annual pollutant scans in both effluent and ambient are not needed to continue to meet water quality requirements.

Based on these concerns, the City respectfully requests a revision to remove the requirement for the annual pollutant scan in both effluent and ambient water, a modification which would make NH WWTFs consistent with MA WWTFs of similar size from a monitoring standpoint.

Response 109

See Response 52.

Comment 110

WET Testing Frequency

The City requests that EPA reinstate the Special Condition to allow for the reduction of toxicity testing frequency.

In Part II.A.1, note 18, EPA states that "if the Permittee identifies or is provided notice of a sudden and significant death of large numbers of fish and/ or shellfish in the vicinity of the

discharge, the Permittee shall follow the procedures described in Part II.H.5". In Part II.H.5.a, similar language is found defining requirements for Accelerated WET Testing.

The City respectfully requests that EPA define "sudden", "significant death", and "large numbers" in the context of this requirement.

Response 110

Regarding the request for a reduction in toxicity testing frequency, see Response 73.

Regarding the requested definitions, see Response 53.

Comment 111

Aesthetics Monitoring

- What is the purpose of this aesthetic monitoring?
- How will the information be used by EPA, especially considering it is submitted on an annual basis?
- What standard methods would facilities use, and how would WWTF staff be consistently trained to inspect and describe these parameters?

Through this permit requirement, the EPA has placed an added, qualitative policing requirement on the City of Somersworth. Somersworth WWTF operators closely monitor effluent water quality for the parameters listed in this requirement. However, the City has no control of receiving water quality, and requiring staff the added responsibility of policing water quality in the vicinity of the discharge would potentially open the City up to litigation to changes in water quality that are beyond the WWTF's control. In addition, because visual observations are qualitative and EPA cites no standard protocols or methods for this monitoring, inspection quality would vary with time and staff.

Based on these concerns, the City respectfully requests a revision to remove the aesthetic monitoring requirement, which would make the permit requirements consistent with smaller NH facilities and MA facilities of similar size.

Response 111

See Response 54.

Comment 112

Benthic Survey

The City respectfully requests removal of the benthic survey requirement from the permit based on the following concerns:

The NHDES⁹ and EPA¹⁰ have each established standard protocols for conducting benthic habitat surveys in freshwater bodies. These protocols define standard field sampling methods (e.g.,

install a rock basket), establish laboratory protocols (e.g., through specified taxonomic counts per unit area), and provide a template for data analysis and reporting.

1. Why does the benthic survey requirement not reference one of these documents as a standard protocol for field sample collection, laboratory analysis, and report preparation for facilities discharging to freshwater environments, instead leaving the details ambiguous?
2. Will EPA or NHDES draw on standard protocol(s) for conducting benthic surveys in marine environments, in order to bound the effort needed to meet this requirement? For example, see efforts coordinated through NOAA¹¹ for coastal environments.

We believe that the methodological ambiguity of the benthic survey would result in a wide range of data collection and analysis efforts. The approach taken for the benthic survey would also be specific to the site and the firm chosen to carry out the survey.

1. Because of this ambiguity, a standard approach should be undertaken at the New Hampshire State or federal level, with benthic surveys conducted using the same protocol with site-specific conditions considered from each POTW. Such an approach would greatly reduce the overall cost burden for this requirement, and allow for greater data standardization across facilities, watersheds, and type of aquatic environment.

We have estimated that a survey could cost the City \$35,000 or more when no index of biotic integrity is calculated. Advanced financial planning would be required to cover the cost of this unfunded mandate.

1. Would EPA or NHDES provide a funding mechanism to partially or fully support a benthic survey, or would the cost for such a survey be fully borne by the community?

⁹ NH DES Water Division-Watershed Management Bureau. 2013. NH DES Protocols for Macroinvertebrate Collection, Identification and Enumeration.

¹⁰ Barbour, M.T., J. Gerritsen, B.D. Snyder, and J.B. Stribling. 1999. Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates and Fish, Second Edition. EPA 841-B-99-002. U.S. Environmental Protection Agency; Office of Water; Washington, D.C.

¹¹ NCCOS NOAA National Benthic Inventory. <https://products.coastalscience.noaa.gov/nbi/>

Response 112

See Responses 75 and 101.

Comment 113

Industrial Pretreatment Requirements

The City of Somersworth has several industrial users in its pretreatment program. While not all of these users fall into one of the categories defined for PFAS sampling, it will be necessary for Somersworth to update its industrial user permit fee in order to cover the cost for PF AS analysis. Additionally, because wastewater sampling for PF AS requires specific protocols and

training, it will also be necessary for Somersworth to shift staff time and acquire appropriate equipment to complete the required sampling. This programmatic aspect is another burdensome requirement of PFAS monitoring. Additionally, the EPA intends to conduct a national study on industrial wastewater discharges of PFAS to POTWs at facilities accepting >10 million gallons per day and a service population ≥50,000 (Somersworth has service population of approximately 13,000 persons so this study will not apply to Somersworth)¹². The national study will select 2,000 industrial users from 200-300 POTWs for PFAS sampling. The study is currently going through the information collection request approval process and is expected to begin in 2025.

Since the EPA is moving forward with collecting this information at a national level through a coordinated sampling effort that targets 10 users within each POTW sewershed, there is no need for individual communities with smaller flows, like Somersworth, to replicate this effort by targeting all industrial users falling into potential PFAS use categories. We respectfully request the requirement to sample industrial users for PFAS be removed until EPA has completed its national study, which will guide targeted sampling in smaller communities.

¹² EPA, 2024. POTW Influent PFAS Study. <https://www.epa.gov/eg/potw-influent-pfas-study#current-status>

Response 113

Regarding cost and industrial users, see Response 6.

Regarding the national study, see Response 12.

P. Comments from James Sullivan, Town Manager, Town of Hampton, on February 12, 2025.

Comment 114

The Town shares the Environmental Protection Agency's (EPA) and New Hampshire Department of Environmental Services' (NHDES) commitment to protecting New Hampshire's coastal waters. Currently, we are in the process of our Wastewater Treatment Plant (WWTP) Phase 2 Upgrades, having committed over \$27M in the past five years to improving WWTP operations. These investments include substantial upgrades to the physical and process treatment systems and advanced technologies to improve operational efficiency and environmental compliance. In addition, the Town continues to work with NHDES and the EPA to look at effective solutions to reduce copper discharge which has included chemical addition pilot programs and an investigation into the WWTP outfall relocation. The commitment to protecting our community and resources also incorporates the implementation of Asset Management, major infrastructure projects (such as sewer replacement and rehabilitation), the elimination of inflow and infiltration (1/1), roadway reconstruction, stormwater management initiatives, and compliance with other NPDES permits (e.g., MS4, MSGP).

General

In reviewing the Draft Permit, the Town was dismayed by the substantial number of new compliance provisions, the increased testing frequency for both existing and newly introduced

parameters, and the number of time-bound deliverables for programs and reports. These requirements present significant challenges from a logistical and fiscal standpoint.

Adding to these challenges is the national workforce shortage, which has led to widespread reductions in the availability of qualified wastewater treatment plant operation's staff. The Town has had vacant positions for several years, making it difficult to meet existing operational demands, let alone the increased compliance requirements introduced by the Draft Permit. These requirements, including but not limited to additional sampling, reporting, and programmatic deliverables, will necessitate hiring additional management and operations staff during an already constrained labor market.

The Town also has concerns about the feasibility and costs associated with compliance within the prescribed timeframes. In many cases, the increased demand for testing, reporting, and program implementation will result in larger demands on already strained laboratories and higher administrative and operational costs. To ensure successful compliance while minimizing undue financial and administrative burden, we respectfully request that the EPA revise the Draft Permit to provide additional flexibility.

Response 114

EPA appreciates the efforts undertaken in recent years by the Town of Hampton as described in this comment. EPA acknowledges that many provisions of this General Permit are new and require additional cost and resources. Further, EPA understands the increased challenges associated with workforce shortages. With these challenges in mind, EPA has carefully considered the comments received both by the Town of Hampton (below) as well as all other commenters and, where appropriate, has made some changes which may alleviate some of these challenges.

Regarding cost, see Response 1.

Comment 115

Aesthetics

The EPA is requiring in Part II.A that the Town conduct, monthly, a "visual inspection of the receiving water in the vicinity of the outfall and report any changes that may be caused by the discharge" related to odor, color, turbidity, floating materials, settleable solids, and films/sheens. EPA is also requiring facilities to report complaints of taste/odor and remedial actions to address complaints. Reporting for inspections and complaints would occur at the end of each calendar year.

Through this Draft Permit requirement, the EPA has placed an added, qualitative policing requirement on the WWTPs after the discharge location. Facility operators closely monitor effluent water quality for the parameters listed in this requirement. However, facilities have no control of receiving water quality, and requiring facility staff the added responsibility of policing water quality in the vicinity of the discharge would open facilities up to litigation to changes in water quality that are beyond the WWTP's control. In addition, because visual observations are

qualitative and EPA cites no standard protocols or methods for this monitoring, inspection quality will vary by person and site.

We request EPA revise the Draft Permit as follows:

1. Remove Aesthetic Monitoring Requirements in their Entirety. Such a revision would be consistent with the intent of Section E of the New Hampshire State Certification which, in accordance with 40 CFR 124.53, states that the reduction in aesthetic monitoring would not make the Draft Permit less stringent and would not violate State law and New Hampshire water quality standards because the New Hampshire water quality standards already prohibit discharges that impair aesthetic values in receiving waters. Furthermore, the requirement does not address effluent water quality, but only the receiving water quality which the permittee has no direct control beyond the specified discharge.

Response 115

See Response 54.

Comment 116

Pollutant Scan

The EPA is requiring the Town to perform annual Pollutant Scans of more than 100 pollutants listed in Attachment I for effluent and receiving water samples throughout the permit period. In addition, Part 11.1.7 requires that WWTPs complete additional composite samples bringing the total during the permit period to at least 13 Pollutant Scans. (This is assuming Part II.I.7 refers only to effluent samples). The additional costs associated with this increased testing would be more than \$13,000 for all the required pollutants.

We request that EPA revise the Draft Permit as follows:

1. Eliminate Annual Pollutant Scan Requirements for effluent and receiving water samples. This revision would eliminate expensive monitoring costs and would enable WWTP management to apply these cost savings to other compliance and operational concerns without affecting water quality.

Response 116

See Response 52.

Comment 117

Benthic Survey

The EPA is requiring that the Town perform a benthic survey once during the permit period. Part II.H.6. includes language and parameters of the survey. It is understood that NHDES has proposed changes to these requirements with the request to link the actual requirement to a known and understood negative impact that has been identified to be caused by the discharge. However, this introduces several concerns.

We request that EPA work with NHDES and consider how to revise the Draft Permit to respond and clarify the following:

1. Define specific effluent-based criteria that would trigger a survey. The conditions that would constitute a "known or suspected detrimental impact" on downstream benthic communities are not defined.
2. Consider incorporating clear, codified survey triggers into New Hampshire water quality regulations and evaluate water quality standards that best correlate to benthic community health. It is unclear whether there is a correlation between effluent parameters, such as Total Suspended Solids, and the need for a benthic survey. This uncertainty extends to the trigger criteria.
3. Clarify notification procedures and required time lines for completion. The Draft Permit does not specify how or when WWTPs would be notified of the requirement and/or how much time they would have to complete a survey.
4. Identify potential funding support for communities required to conduct surveys. Benthic surveys are estimated to cost \$20,000 - \$40,000 or more, which represents a significant funding challenge for affected communities. There is no indication of whether EPA or the state would provide funding assistance or if the cost would be fully borne by the community.

Response 117

See Response 101.

Comment 118

Adaptation Planning

The EPA requires that the Town develop an Adaptation Plan for the Wastewater Treatment System and the sewer system (Part II.C). The Town believes this requirement represents a significant burden to permittees and co-permittees due to its comprehensive scope, rigid timelines, and lack of financial support. These concerns remain relevant and applicable as a response to the rationale provided in Appendix D of the Draft Permit Fact Sheet.

It is important to also focus on the details of Component 3: Implementation and Maintenance Schedule found in Part II.C.1.a. Given the requirements and completeness of a permittee's Adaptation Plan and the nature of procuring funding at the local municipal level, the 48-month time line is too restrictive. Competing needs of our WWTP and collection and conveyance system, as well as those at the municipal level, make it difficult to achieve strict compliance with such mandates and prevent officials from designating funds in a manner that best protects all constituents through investment in infrastructure systems, social service programs, public safety, etc.

We request that EPA revise the Draft Permit as follows:

1. Modify the language of Part II.C.1.a. to allow permittees to be flexible in implementing and maintaining their adaptive measures so they may balance all infrastructure investments.

Response 118

See Response 2.

Comment 119

PFAS and Adsorbable Organic Fluorine Monitoring

The EPA is requiring the Town in Part II.A. and Footnotes 14 and 15 to test for PFAS and Adsorbable Organic Fluorine (AOF). However, these testing methods have not been promulgated at the federal level. The EPA rulemaking process indicates that final action for these methods is still "To Be Determined." Given this status, PFAS and AOF testing do not at present align with EPA guidance. Additionally, the proposed monitoring requirements impose significant financial and operational burdens on affected WWTPs, particularly smaller facilities that are not included in EPA's ongoing national study.

We request that EPA revise the Draft Permit as follows:

1. Revise Footnote 2. Remove references to PFAS and AOF testing from this footnote until these methods are officially promulgated under 40 CFR Part 136. Currently, no finalized Clean Water Act (CWA) methods exist for these parameters and removal aligns with the still-pending status these methods.
2. Remove Footnotes 14 and 15. These footnotes require testing using Methods 1633 and 1621, despite recognized limitations. Method 1621 is a speculative test with known interferences, including non-PF AS compounds.
3. Align requirements with the National EPA Study Parameters. The EPA study on wastewater influent PFAS is limited to WWTPs with a capacity of 10 MGD or larger and serving populations of 50,000 or more. The Draft Permit extends these testing requirements to smaller facilities, many of which are eligible for coverage under the Draft Permit but do not meet the criteria of the national study. This requirement should be removed to align with EPA's intended phased approach.
4. Delay implementation until lab capacity increases. The EPA has acknowledged the limited availability of certified laboratories for PFAS and AOF testing. The national study staggers sampling to prevent overwhelming labs, yet Region I's Draft Permit imposes additional quarterly testing on smaller WWTPs. This added burden is not logistically feasible and should be postponed until an independent analysis indicates that sufficient laboratory capacity has become readily available to all permittees subject to these requirements.

Response 119

See Responses 6 (cost), 11 (methods and footnotes), 12 (national study), and 50 (lab availability).

Comment 120

Accelerated WET Testing

The EPA is requiring the Town in Part II.H.5. to conduct accelerated WET Testing within 14 and 28 days after receiving certain results. The proposed schedule is impracticable and unworkable. WET Testing is booked many weeks in advance and labs have limited availability to perform such testing. Also, EPA is requiring the Town in Part II.H.5.a to provide additional WET testing due to

the observance of an "oily sheen" in the receiving water. This is not relevant to the effluent water quality as any hydrocarbons in the effluent is already measured in other parameters.

We request that EPA revise the Draft Permit as follows:

1. Amend the accelerated Wet Testing requirements. Upon obtaining unfavorable results from a WET Test, the Town would be allowed to conduct a retest within the same quarter, but not within the limited timeframe (as originally written) of only 14 to 28 days.
2. Amend Part II.H.5.a. that requires additional WET testing due to the observance of an "oily sheen". If an oily sheen is observed and there is a violation of any WET limit, only one accelerated re-test should be conducted using an alternative dilution water. If it is found that receiving water is the cause of the violation the permittee would continue to use the alternative dilution water for subsequent WET testing. If it is found that the effluent is the cause of the violation the permittee would conduct further investigation.

Response 120

Regarding the requirement to conduct accelerated WET testing within 14 and 28 days, EPA considers that expediting such re-tests is important to ensure that any persistent toxicity from the discharge is found and addressed as quickly as possible. However, EPA also recognizes that there may be limitations outside the permittee's control, such as lab availability. Therefore, EPA has maintained the 14 and 28 days timelines in the Final General Permit, but has added a provision that the re-tests must be conducted within those timeframes "or as soon as possible thereafter based on factors outside the Permittee's control (*e.g.*, limited lab availability). The Permittee must document the justification for any re-tests conducted after these timeframes and include the justification with the re-test results."

Regarding an oily sheen in Part II.H.5.a, see Response 16.

Comment 121

When considered together, the revisions requested would provide the Town with the time and resources needed to effectively comply with the permit without compromising environmental outcomes. The Town of Hampton appreciates the EPA's ongoing efforts to protect water quality and looks forward to working collaboratively to ensure that the permit's goals are met in a realistic and achievable manner.

Response 121

EPA acknowledges this comment and has responded to each item above.

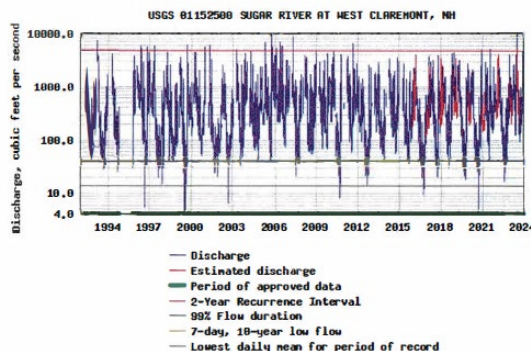
Q. Comments from Kyle Harris, Town Manager, Town of Newport, on February 12, 2025.

Comment 122

7Q10 River Flow Calculation

The revised 7Q10 flow used by EPA does not appear to be in agreement with the local gage data. According to Appendix B of the GMP Fact Sheet Attachments, the 7Q10 flow of 24.98 cfs was

obtained using downstream gage information for USGS Gage Basin #01152500 Sugar River at West Claremont, NH for the time period spanning 1992 -2023. This 7Q10 value is less than the 7Q10 value reported by USGS for this station. Please refer to the Figure below identifying a 7Q10 flow between 30-40 cfs.



The Town requests that EPA adjust the 7Q10 flow calculation using the USGS published 7Q10 for this gage and time period, and reevaluate the applicable permit analyses using this adjusted 7Q10 flow.

Response 122

See Response 66 (first paragraph). Note that the gage location misapplication described in Response 66 only applies to Claremont and does not apply to Newport. This comment does not result in any change to Newport's 7Q10, dilution factor or effluent limitations.

Comment 123

New Total Residual Chlorine Limitation

The EPA is setting numerical effluent limits for total residual chlorine (TRC) based on broad regulatory frameworks, rather than historical data collected at the receiving water. The Town was not required to monitor for TRC in either the effluent or receiving water under its current individual permit. The facility does not use chlorine in its treatment process, but rather ultra-violet light for disinfection. The Town will continue to do so with the new WWTF upgrades expected to be completed in 2027. It is understandable for EPA to set water quality standards and numerical effluent limits for pollutants based on identified potential to harm aquatic life and the environment. However, identified potential to harm has not been established in this instance. **For these reasons, the Town requests that EPA remove the TRC effluent limits from the permit.**

Response 123

See Response 34.

Comment 124

Total Aluminum Limit

Aluminum Rulemaking Status in New Hampshire. EPA has carried forward the average monthly total aluminum effluent limit of 87 ug/L. This discharge limit is equivalent to the freshwater chronic criteria established in NH Env-WQ 1703.21 for acid soluble aluminum of 87 ppb. This

chronic criterion is derived from the Ambient Water Quality Criteria for Aluminum -1988¹, based on the results of toxicity testing of aluminum to select aquatic life. While the criterion was established with the goal of protecting aquatic life and was developed using the best available toxicity testing data at its time, there has been longstanding and significant regulatory controversy regarding the scientific basis for the criterion and its applicability to varying surface water chemistries (i.e. pH and hardness). As it lacks consideration of site-specific water chemistry, the criterion fails to appropriately characterize the bioavailability of aluminum.

The 1988 aluminum chronic criterion was superseded in 2018 when the EPA updated its national recommended ambient water quality criteria for acute and chronic aluminum aquatic life exposure in fresh water to consider the bioavailability of aluminum based on receiving water aquatic system chemistry². This new EPA guidance recommended the use of Multiple Linear Regression (MLR) models to derive key statistics and issued an Aluminum Criteria Calculator that uses water chemistry parameters (pH, DOC, and total hardness data) as inputs to calculate aluminum criteria unique to the permit site. Example calculations provided by the EPA for a range of pH, hardness, and DOC values typical in New Hampshire freshwater systems show that NHDES' current acid soluble aluminum criteria is generally more stringent than the proposed chronic criterion³. More specifically, the MassDEP⁴ used the EPA MLR Aluminum Criteria Calculator to derive aluminum criteria for 15 river basins and coastal drainages in Massachusetts, several of which originate in or pass through New Hampshire. In all cases, the chronic criteria calculated using EPA's MLR model was considerably higher than NH's current criteria (87 ppb).

EPA issued this limit in Newport's 2020 Individual Permit with a compliance schedule of 3 years in anticipation of New Hampshire adopting the 2018 criteria. This compliance schedule concluded on September 1, 2023. Prior to the end of the compliance period, on July 14, 2023, the Town submitted a permit modification request to EPA to extend the compliance period an additional 3 years. This request was submitted following NHDES' release of draft surface water quality regulations with revisions to the total aluminum criteria calculation methods, June 13, 2023. The request was denied due to the timing of the request. Although it was noted that "EPA agrees that Newport may benefit from the new criteria".

In August 2024, NHDES issued draft changes to Env-WQ 1703.22(s) that allows for the determination of total aluminum water quality criteria considering waterbody specific pH, DOC, and hardness using EPA procedures with a defined approach following its Draft Aluminum Criteria Implementation in NPDES Permitting⁵. This approach is not without its technical issues, but it represents one step closer to the current EPA's national guidance². The NHDES has not yet promulgated changes to Env-WQ 1703.22 to incorporate this updated aluminum guidance into NH water quality standards. Even after these standards are adopted by the state, there will be additional time required for EPA Region 1 to formally approve these revisions.

Similar to the timing of aluminum limits in this Draft New Hampshire MGP, the Mass DEP was in the process of revising its aluminum criteria and had recently promulgated updated Surface Water Quality Standards to reflect these criteria when the Draft Massachusetts MGP was released in 2021. EPA provided specific language in the Mass MGP Fact Sheet that allowed for an

extended aluminum compliance period to reflect: (1) an undefined time line for the Mass SWQS to go through the EPA review and approval process to be used in NPDES permits, (2) a caveat that Mass WWTFs could apply for a permit modification prior to the final aluminum effluent going into effect based on the new criteria if the Mass SWQS were approved by EPA, and (3) the opportunity for EPA to relax or remove the aluminum limit if warranted by the new criteria and a reasonable potential analysis without triggering anti-backsliding requirements⁶.

Based on discussion with NHDES staff and the previous timeline for EPA approval of Mass DEP SWQS for aluminum, we anticipate the following milestones for updated aluminum criteria in New Hampshire:

1. The public comment period for proposed changes to Env-WQ 1700 Surface Water Quality Standards (SWQS), which includes changes to the aluminum criteria, closed on November 22, 2024. A reasonable timeline of 6 months to 1 year for final approval of NH Env-WQ 1700 through New Hampshire Joint Legislative Committee on Administrative Rules (JLCAR) can be expected. This timeline assumes that there are no significant delays or concerns during the JLCAR review and approval process;
2. Assuming changes to NH Env-WQ 1700 are approved by JLCAR, we anticipate an additional 6 months to 1 year for review, approval, and use by EPA of revised NH Env-WQ 1700 SWQS in this NPDES MGP;
3. Once approved, NH MGP holders can start the process described in the NHDES Draft - Aluminum Criteria Implementation in NPDES Permitting. Assuming the permittee chooses to fulfill data requirements defined in the Implementation on an accelerated sampling effort, the permittee would need to:
 - i. Solicit bids and contract with a consulting firm -approximately 3 months.
 - ii. Develop the sampling plan -approximately 2 months.
 - iii. Receive approval from NHDES and EPA on the proposed sampling plan and analysis of the data -approximately 3 months.
 - iv. Once the plan is approved by NHDES and EPA, the permittee will implement the accelerated sampling plan -1 or 2 years.
 - v. The consultant would then use the collected information to calculate the instantaneous criteria values using the NHDES approach⁴ and approved aluminum calculator and compile findings into a report -approximately 4 months.
 - vi. Submit report to NHDES and EPA for review and approval -approximately 6 months.
4. Once site specific criteria were developed, the permittee would submit a revision/addendum to the NPDES permit, which would require review and approval by NHDES and EPA, a process that could take another 6 months to 1 year.

Overall, this process may take 5 years to complete, assuming no unforeseen delays.

It is evident that the three-year compliance schedule that EPA has arbitrarily applied to facilities across New Hampshire since the release of the 2018 revised criteria is insufficient and was not established in consideration of the complexity of the rulemaking adoption process or any unforeseen delays. As a result, Newport became subject to an overly conservative effluent

limitation. Even though EPA acknowledges that the 2018 revised criteria could lead to a less stringent chronic criterion, which would be more suitable when applied to site-specific conditions. **Given EPA's acknowledgment and NHDES' progress toward adopting the revised criteria, the Town requests that the effluent limit be replaced with a 5-year compliance schedule that supports the timeline for NHDES and EPA to promulgate and/or approve the revised aluminum criteria. This also allows time to fulfill the data requirements and to obtain approval for site-specific criteria to be approved. In addition, we also request EPA include specific language in this compliance period that references an anti-backsliding exception from the CWA § 402(o)(2)(A), "[a] permit with respect to which paragraph (1) applies may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant if substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation."**

Further, the final authorization should contain updated language to reflect an opportunity to calculate site specific aluminum criteria based on EPA's final national guidance (2018). Specifically, we request EPA include language in the Aluminum Compliance Schedule to reflect the following approach used in New Hampshire and in Massachusetts during aluminum criteria promulgation:

"If during the compliance period after the effective date of the permit, New Hampshire adopts revised aluminum criteria, then the permittee may request a permit modification, pursuant to 40 C.F.R. § 122.62(a)(3), for a further delay of the effective date of the final aluminum effluent limit. If new criteria are approved by EPA before the effective date of the final aluminum effluent limit, the permittee may apply for a permit modification, pursuant to 40 C.F.R. § 122.62(a)(3), for a longer time to meet the final aluminum effluent limit and/or for revisions to the permit based on whether there is reasonable potential for the facility's aluminum discharge to cause or contribute to a violation of the newly approved aluminum criteria. The final effluent limit of 87 µg/l for aluminum may be modified prior to the end of the compliance schedule if warranted by the new criteria and a reasonable potential analysis and consistent with antidegradation requirements. Such a modification would not trigger anti-backsliding prohibitions, as reflected in CWA 402 § (o) and 40 CFR § 122.44(1)."

¹ EPA (1988). Ambient Water Quality Criteria for Aluminum -1988. EPA 440/5-86-008.

² EPA (2018). Final Aquatic Life Ambient Water Quality Criteria for Aluminum 2018. EPA-822-R-18-001.

³ EPA (2017). Draft Aquatic Life Ambient Water Quality Criteria for Aluminum. EPA-822-P-17-001.

⁴ MassDEP (2019). MassDEP Presentation on proposed changes to Aluminum and Copper Criteria, February 2019. <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/201902-madeep-314cmr4-pres.pdf>

⁵ NH DES (2024). DRAFT -Aluminum Criteria Implementation in NPDES Permitting. October 17, 2024. DRAFT R-WD-24-19.

⁶ EPA (2021). Fact Sheet and Supplemental Information, Draft National Pollutant Discharge Elimination System (NPDES) Permit to Discharge to Waters of the United States Pursuant to the Clean Water Act (CWA). New England - Region 1, Boston, Massachusetts.

Response 124

See Response 48 and 67.

Comment 125

PFAS Monitoring -Frequency

The EPA is imposing monitoring requirements for PFAS on its influent, effluent and sludge, based on guidance developed through EPA's own Action Plan (2019) and PFAS Strategic Road Map, as well as reference to drinking water and groundwater standards. The State of NH, nor the federal government, have adopted surface water quality standards for PFAS. Furthermore, it is not anticipated that surface water quality standards for PFAS will be adopted within this permit term given the recent actions of the new federal administration. The new administration has already withdrawn the Agency's proposed effluent limitations guidelines for PFAS (OIRA Conclusion of EO 12866 Regulatory Review). Although the Town understands data collection is needed at WWTFs to understand PFAS sourcing and fate in our communities, EPA does not have the legislative authority to administer monitoring requirements for PFAS to surface water bodies. **For these reasons, the Town requests that EPA remove the monitoring requirements from the Permit.**

The PFAS monitoring requirements in this permit are excessively burdensome, especially compared to the Small WWTF General Permits issued in Massachusetts and New Hampshire in 2021 and the Medium WWTF General Permit issued in Massachusetts in 2022. Facilities in MA and NH that discharge <1 MGD covered under the Small WWTF General Permit are only required to monitor for six PFAS analytes in influent, effluent, and sludge and this monitoring is required half as frequently (2/year) as the proposed Draft MGP (4/year). Medium WWTF General Permit facilities in MA are required to monitor for 40 PFAS analytes in influent, effluent, and sludge using method 1633 on a similar schedule (I/Quarter), but are not required to test for adsorbable organic fluorine which is a significant addition to this already burdensome requirement.

The new PFAS testing requirements for the Town represent an added analytical cost of approximately \$10,000 annually. The Draft MGP requirements therefore result in the greatest frequency and highest cost burden to date in the region for PFAS testing, with no foreseeable off ramp for reduced monitoring during the permit period. Considering there are 21 WWTFs that fall under this NH MGP where quarterly sampling of the influent, effluent, and sludge will be required, the state will generate 189 datapoints annually for PFAS Analytes across the state, and another 168 data points annually for AOF in the influent and effluent at these facilities. In addition, industrial users falling into PFAS use categories will also be sampled annually for PFAS Analytes, representing hundreds of more datapoints annually.

Should EPA exercise beyond its legislative authority and impose the PFAS monitoring requirements for surface waters, the Town requests the following:

- 1. The effective date of PFAS sampling in sludge be extended to October 1, 2027. The Town submitted an extension request for its current AO compliance schedule, which is currently under review by the EPA and NHDES. To better align with the anticipated construction schedule of the WWTF upgrades, an extension of one year is requested.**
- 2. The extent of monitoring be capped at 2 years during the permit period. A 2-year monitoring cap will generate over 700 PFAS related datapoints in NH medium**

facilities and hundreds of other data points from industrial users in these sewersheds for use by EPA in understanding geographic and temporal fluctuations of PFAS. A 2-year monitoring cap would ease the financial burden, sampling effort, and reporting burden resulting from this requirement.

Response 125

See Response 49.

Comment 126

PFAS Monitoring-Analytical Methods

The New Hampshire Environmental Laboratory Accreditation Program (NHELAP) provides primary and secondary accreditation to environmental laboratories located within and outside the state to ensure sufficiently accurate, precise and consistent results of analyses. Although both EPA Method 1633A and 1621 are recommended for use in individual CWA permits, both have undergone significant revision and validation over a short period. Method 1633A and 1621 were both proposed for approval at 40 CFR Part 136.3 in December 2024, but their approval remains pending. Currently, there are no labs accredited for Method 1633A and 1621 through the NHELAP. Only 7 labs are accredited through the NHELAP for Method 1633, all of whom are located outside New Hampshire.

Analytical laboratories serving New Hampshire POTWs already have extended turn-around times for PFAS analyses. The volume of samples to be generated through the PFAS monitoring requirements in this permit and other draft permits (such as the NH Medium General Permit) would place additional pressure on an already constrained commercial laboratory network. These laboratories serve numerous states, and this monitoring requirement would only exacerbate the current situation. This will undoubtedly result in: (a) extended hold times, which reduces data quality and reliability, and (b) long turn-around times for data, which impacts data reporting requirements at these facilities.

The Town requests a revision to the PFAS monitoring requirements to place monitoring on hold until (a) Method 1633A and 1621 are promulgated in 40 CFR Part 136, Guidelines for Establishing Test Procedures for the Analysis of Pollutants, and (b) the NHELAP has the opportunity to assess and accredit laboratories for these two EPA methods for state water quality monitoring purposes.

Response 126

See Response 50.

Comment 127

Pollutant Scan

The extended pollutant scan requirement defined in this permit is not consistent with pollutant scan requirements for Small and Medium WWTF General Permits issued in Massachusetts and New Hampshire in 2022 and 2023. Facilities in MA and NH that discharge <1 MGD are not required to scan for the pollutants listed in Attachment I. Medium WWTF in MA are only required to conduct three pollutant scans on effluent once per quarter in the final three full

calendar quarters of the 5-year permit term.

1. What is the purpose of an annual pollutant scan in effluent, especially in situations where no new industrial users have been added to the Town's sewershed?
2. Why is the WWTF required to test for pollutants in ambient water, when the facility is not responsible for background pollutants in the receiving water body?

The new pollutant scan requirement represents an added \$12,000 in additional monitoring costs over the permit period for the Town. It also represents an additional \$2,000 per year in monitoring beyond what medium-sized facilities in MA are required to collect. WWTFs are not responsible for ambient pollutants, and effluent monitoring will be conducted at the end of the permit cycle, therefore annual pollutant scans in both effluent and ambient are not needed to continue to meet water quality requirements.

Based on these concerns, the Town requests a revision to remove the requirement for the annual pollutant scan in both effluent and ambient water, a modification which would make NH WWTFs consistent with MA WWTFs of similar size from a monitoring standpoint.

Response 127

See Response 52.

Comment 128

Aesthetics Monitoring

1. What is the purpose of this aesthetic monitoring?
2. How will the information be used by EPA, especially considering it is submitted on an annual basis?
3. What standard methods would facilities use, and how would WWTF staff be consistently trained to inspect and describe these parameters?

Through this permit requirement, the EPA has placed an added, qualitative policing requirement on the Town of Newport. Newport WWTF operators closely monitor effluent water quality for the parameters listed in this requirement. However, the Town has no control of receiving water quality, and requiring staff the added responsibility of policing water quality in the vicinity of the discharge would open the Town up to litigation to changes in water quality that are beyond the WWTF's control. In addition, because visual observations are qualitative and EPA cites no standard protocols or methods for this monitoring, inspection quality would vary with time and staff.

Based on these concerns, the Town requests a revision to remove the aesthetic monitoring requirement, which would make the permit requirements consistent with smaller NH facilities and MA facilities of similar size.

Response 128

See Response 54.

Comment 129

Benthic Survey

The Town requests removal of the benthic survey requirement from the permit based on the following concerns:

1. The NHDES⁷ and EPA⁸ have each established standard protocols for conducting benthic habitat surveys in freshwater bodies. These protocols define standard field sampling methods (e.g., install a rock basket), establish laboratory protocols (e.g., through specified taxonomic counts per unit area), and provide a template for data analysis and reporting.
 - i. Why does the benthic survey requirement not reference one of these documents as a standard protocol for field sample collection, laboratory analysis, and report preparation for facilities discharging to freshwater environments, instead leaving the details ambiguous?
 - ii. Will EPA or NHDES draw on standard protocol(s) for conducting benthic surveys in marine environments, in order to bound the effort needed to meet this requirement? For example, see efforts coordinated through NOAA⁹ for coastal environments.
2. The methodological ambiguity of the benthic survey would result in a wide range of data collection and analysis efforts. The approach taken for the benthic survey would also be specific to the site and the firm chosen to carry out the survey.
 - i. Because of this ambiguity, a standard approach should be undertaken at the state or federal level, with benthic surveys conducted using the same protocol with site-specific conditions considered from each POTW. Such an approach would greatly reduce the overall cost burden for this requirement, and allow for greater data standardization across facilities, watersheds, and type of aquatic environment.
3. We have estimated that a survey could cost the Town \$35,000 when no index of biotic integrity is calculated. Advanced financial planning would be required to cover the cost of this survey.
 - i. Would EPA or NHDES provide a funding mechanism to partially or fully support a benthic survey, or would the cost for such a survey be fully borne by the community?

⁷ NH DES Water Division-Watershed Management Bureau. 2013. NH DES Protocols for Macroinvertebrate Collection, Identification and Enumeration.

⁸ Barbour, M.T., J. Gerritsen, B.D. Snyder, and J.B. Strubling. 1999. Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates and Fish, Second Edition. EPA 841-B-99-002. U.S. Environmental Protection Agency; Office of Water; Washington, D.C.

⁹ NCCOS NOAA National Benthic Inventory. <https://products.coastalscience.noaa.gov/nbi/>

Response 129

See Responses 75 and 101.

Comment 130

Adaptation Planning

The proposed Adaptation Plan does not appear to come with provisions for funding or financial support for permittees. Undertaking vulnerability assessments, adaptive measures assessments, and the subsequent implementation and maintenance schedules would likely require considerable financial investments. Limited federal or state funding will lead many permittees

and co-permittees to consider this an unfunded mandate. As more permittees and co-permittees receive new permits, there is a need for a program to fund all components of the Adaptation Plan.

Current federal and state funding requires the permittees and co-permittees to apply for and secure a loan or grant award, as well as obtain borrowing authorization before they can complete eligible portions of the Plan within the mandated time line. Based on the size and scope of the Adaptation Plan outlined in the permit, the mandated timeline is not enough time to complete the Plan. The rigid time lines for each component of the Adaptation Plan, even when Part I.C.I .b. is considered, may not fully address the variations in capacity and complexity of systems managed by permittees and co-permittees. Allowing flexibility would be beneficial and enable permittees and co-permittees to adjust the process to meet their specific needs.

Component 3: Implementation and Maintenance Schedule requires permittees and co-permittees to submit a proposed schedule along with details on funding sources for adaptive measures. This could result in a long-term financial burden, particularly if the identified adaptive measures are expensive or if funding sources are not readily available. If funding is challenging, other asset management priorities may need to be deferred, which could exacerbate existing, known issues.

Should EPA exceed its legal authority and impose adaptation planning contrary to the new administration's position on climate-related policies, the Town suggests the EPA consider adjustments to these requirements to address these concerns to best ensure the Town of Newport will be able to fully comply with the permit and NHDES provide a state-supported funding mechanism to partially or fully support efforts associated with meeting the Adaptation Planning requirements.

Response 130

See Response 2.

R. Comments from Richard K. Reine, Director of Public Works, Town of Durham, on February 12, 2025.

Comment 131

EPA Region 1 recently gave public notice of the Draft of the Medium Wastewater Treatment Facilities General Permit ("Medium WWTF GP", or "General Permit"), and proposes that it would replace individual permit NH0100455 issued to the Town of Durham, NH . Twenty-one (21) wastewater treatment facilities in New Hampshire with design flows greater than 1 million gallons per day (MGD) and up to 5 MGD would be eligible to discharge under this proposed new General Permit.

The Town of Durham ("Durham" or the "Town") has been proactive and aggressive in environmental stewardship of its receiving waters, the Oyster River. The Town has consistently demonstrated a unwavering commitment to environmental stewardship and the protection of water quality, particularly within the Great Bay Estuary. Our ongoing efforts to maintain and

improve the quality of our regional water resources include significant investments in robust wastewater treatment practices that exceed permit compliance requirements, participation in regional environmental initiatives, and proactive collaboration with state and federal agencies. The Town remains dedicated to supporting policies and regulations that safeguard the vital ecosystems of the Oyster River and the Great Bay Estuary, to ensure their sustainability for future generations to come. Our continued focus on environmentally responsible development, wastewater management, and community education highlights our dedication to preserving the unique natural resources that define our region. The Town objects to several conditions proposed in the Draft General Permit as unnecessary, overly burdensome, in excess of EPA authority and contrary to New Hampshire regulations. The Town respectfully submits the following comments related to the draft permit:

Response 131

EPA acknowledges this comment and has responded to the issues raised below.

Comment 132

General & Standard Conditions

The Town of Durham is currently operating under Federal Permit No. NH0100455, which was issued December 15th, 1999. Unlike other communities whose permits were issued more recently, if Durham elected to be covered under the Draft General Permit, it would be faced with implementing more significant changes in a shorter duration (i.e., new testing and analytical protocols, new administrative requirements, new effluent requirements) than many permittees who have received some of these new requirements in previous individual permit renewals.

Because the Town has not undergone a permit renewal process for 25 years, the Schedules of Compliance in its Authorization (Part II.H.4.) need to be extended.

Twenty-one (21) wastewater treatment facilities would be eligible for inclusion under this Medium WWTF GP. While there are individual discharge limits and monitoring and sampling requirements, all the facilities will be covered under the same general and standard permit conditions (not including conditions specific to fresh or marine facilities). The Town is concerned that another community may appeal or challenge a general or standard condition in the Final Medium WWTF GP that could result in modifications to the Town's Permit. **If another community covered under this Medium WWTF GP appeals a General or Standard Condition, we request that EPA re-issue a Revised Draft Medium WWTF GP as modified through the comment response process to all permittees and provide a further review and comment period. In addition, we ask that Durham's permit be put on hold until any appeal process is finalized.**

Response 132

Regarding the request for extended schedules of compliance, EPA acknowledges that the Town of Durham's individual permit is quite old and that coverage under this General Permit represents many significant improvements. However, EPA does not consider that this factor alone would justify an extension of the copper compliance schedule (*i.e.*, the only compliance schedule applicable to Durham under Part II.H.4). For more details regarding this request, see Response 134 below.

Regarding a potential appeal, see Response 65.

Comment 133

Effluent Limitations and Monitoring Requirements

- a. BOD5 (or CBOD5) Removal - Part II.A. 1

Row 4 of the table included in II.A.1 incorrectly references footnote 7. Please remove inapplicable footnote.

Response 133

EPA agrees that this line incorrectly included a reference to footnote 7 which was a typographical error. This reference has been removed.

Comment 134

- b. New Copper Limitation

The Draft Medium WWTF GP proposes to require the Town to meet a new, very low copper effluent limit in Part II.A.1 and an aggressive, 2-year compliance schedule in Part II.H.4. EPA proposes that the Town monitor effluent for copper two times per month. In addition, during year one of monitoring, EPA proposes that the Town would evaluate source reduction opportunities, minor process changes, and treatment optimization that could reduce copper levels in the effluent. During year two, the Town would implement source reduction and/or process changes and monitor the impact on copper effluent levels. EPA also requests a report at the end of each year with monitoring results and a status report documenting progress toward achieving the copper permit limit.

The Draft Authorization proposes copper effluent limits that were calculated based on a water effect ratio (WER) of 1 (per New Hampshire Code of Administrative Rules, Env-Wq 1703.22(d)), a hardness of 20 mg/l (per Env-Wq 1703.22(i)), and a marine conversion factor of 0.83 (per Env-Wq Table 1703.2). NH Administrative Code Env Wq 1703.22(d) provides procedures for site specific metals criteria to be calculated for differing water effect ratios¹ or through use of a site-specific biotic ligand model, but Part II.H., Special Conditions in the proposed Draft Authorization does not incorporate this more accurate, site-specific procedure for calculating a realistic metals effluent limit. Currently, a biotic ligand model for calculating water effect ratios for copper is available and referenced in Env-Wq 1703.22(d) for freshwater systems², but development of a marine biotic ligand model is underway.

The EPA has established updated water quality criteria for freshwater locations, but an equivalent biotic ligand model for marine environments is still in a draft form. The draft model developed by the EPA was never finalized and there is no anticipated completion date. The Town requests that EPA drop the marine copper limit from Part II.A.1 and modify Part II.H. Special Conditions to include a provision to develop metal limits based on a site-specific water effect ratio or a marine biotic ligand model that accounts for site-specific water quality criteria such as temperature, pH, dissolved organic carbon, alkalinity, cations, anions, salinity, sulfide, and others.

The Oyster River is designated as Class B below the Oyster River Reservoir dam; the Town of Durham WWTF discharges into this downstream Class B portion, which is heavily influenced by tides. The use of a mixing zone, a "defined area of volume of the surface water surrounding or adjacent to a wastewater discharge where the surface water, as a result of the discharge, might not meet all applicable water quality standards" (Env-Wq 1702.26) is allowed by NH WQS and is critical for the accurate modeling of discharge to a tidal area. For class B waters, the NH Surface Water Quality standards at Administrative Code Env Wq 1707 provide for designating a limited area of surface water near the effluent as a mixing zone.

The proposed copper limit is lower than NH's drinking water copper limit. If it is finalized, the Town would need to implement significant facility upgrades and make major process changes to comply with the new limit. **The Town needs time to sufficiently evaluate all copper-removal and reduction options. Therefore, we request EPA extend the Compliance Schedule in paragraph H.4 with a more realistic schedule, as follows. Copper monitoring and the development of site-specific water quality criteria would take place during the first year, followed by a year to evaluate optimization, source reduction, and/or minor process changes, followed by four years to financially plan, design and implement these findings.**

We request EPA add a Special Condition to Part II.H. allowing the Town to develop and designate a mixing zone based on criteria for approval in NH Administrative Code Env-Wq 1707.02 and the technical standards described in Env-Wq 1707.04³.

¹ EPA (2001). Streamlined Water-Effect Ratio procedure for Discharges of Copper, EPA-822-R-01-005.

² EPA (2007). Aquatic Life Ambient Freshwater Quality Criteria - Copper, EPA-822-R-07-001.

³ EPA (1991), Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001.

Response 134

Regarding the development of a site-specific copper criteria using either the water effect ratio or a biotic ligand model, see Response 68.

Regarding the request to apply a mixing zone, EPA notes that the analysis in the development of the General Permit included the allowance of a dilution factor of 1.7 for this outfall. In effect, this is equivalent to applying a mixing zone and allows exceedances of water quality criteria within the zone of initial dilution.

EPA does not consider that additional time in the compliance schedule is justified based on either of the issues addressed above. Federal regulation 40 CFR § 122.47(a)(1) indicates that a compliance schedule shall require compliance "as soon as possible." EPA maintains that the 2-year compliance schedule is justified given that source reduction and optimization within this timeframe may be sufficient time to come into compliance.

Therefore, the schedule has not been changed in the Final General Permit. If the Permittee is unable to come into compliance within this timeframe, they may contact EPA's Enforcement and Compliance Assurance Division (ECAD) to discuss next steps.

Comment 135

New Ammonia Nitrogen Limit- Part II.A. 1

EPA proposes a seasonal ammonia nitrogen limit for the Town of Durham calculated using EPA's mass balance equation for marine discharges to estimate the downstream concentration after complete mixing. This value was compared with the calculated acute and chronic criteria for ammonia. EPA utilized an assumed water temperature of 25° C when calculating the ammonia criterion. While water temperatures in the Oyster River may reach 25° C during some summer months, a review of USGS water temperature statistics from a station located upstream of the WWTF discharge indicates that temperatures are generally cooler which would result in a different ammonia criterion for effluent limit calculations.

We request EPA add a Special Condition to Part II. H, similar to the Provision to Modify pH Range, allowing the Ammonia Nitrogen limit to be modified if the Town submits acceptable local water temperature data to EPA to substantiate recalculation of the ammonia criterion.

Response 135

Regarding local water temperature data, EPA notes that the Permittee is welcome to collect the necessary data and submit a request to EPA for a permit modification (if justified based on the data). EPA notes that the temperature used in the reasonable potential analysis must represent a reasonable worst-case value to ensure that it is protective under all reasonable conditions. Therefore, multiple years of temperature data during each month or season in question to ensure a conservative/protective value is applied. Given that no site-specific temperature data are available at this time, EPA would consider the site-specific temperature data to be "new information" which would qualify as an anti-backsliding exception and allow for potential relaxation of the limit (if justified by the data). See CWA 402(o)(2)(B)(i). Upon receipt of such a request, EPA will review and act on the request based on available resources at that time. There is no need for the General Permit to include a provision to allow for this to occur.

Comment 136

New PFAS Monitoring Requirements - Frequency and Cost- II.A.1

EPA proposes in Table II.A.1 to require that facilities monitor PFAS analytes and adsorbable organic fluorine in influent, effluent, and sludge on a quarterly basis during the permit period. In addition, in Part II.E.4, EPA would extend PFAS analyte monitoring requirements on an annual basis to industrial users that fall into one of 10 or more user types, with the requirement of reporting for each industrial user placed on the facility.

The Clean Water Act Effluent Limitation Guidelines have been the subject of regulatory freeze announcements from the Trump administration. Accordingly, PFAS monitoring requirements in the Draft Medium WWTF GP may not have regulatory authorization.

Setting aside the regulatory validity of these provisions, it is evident that the proposed PFAS monitoring requirements in this permit are overly burdensome, especially compared to the Small WWTF General Permits issued in Massachusetts and New Hampshire in 2021 and the Medium WWTF General Permit issued in Massachusetts in 2022. Facilities in MA and NH that

discharge <1 MGD covered under the Small WWTF General Permit are only required to monitor for six PFAS analytes in influent, effluent, and sludge and this monitoring is required half as frequently (2/year) as the proposed NH Medium General Permit (4/year). Medium WWTF General Permit facilities in MA are required to monitor for 40 PFAS analytes in influent, effluent, and sludge using method 1633 on a similar schedule (1/Quarter), but are not required to test for adsorbable organic fluorine which is a significant addition to this already burdensome requirement.

The proposed new PFAS testing requirements for Durham represent an added analytical cost of approximately \$10,000 annually. The NH Medium WWTF GP would therefore result in the greatest frequency and highest cost burden to date in the region for PFAS testing, with no foreseeable off ramp for reduced monitoring during the permit period. Considering there are 21 WWTFs eligible under this NH MGP where quarterly sampling of the influent, effluent, and sludge would be required, the state would generate 189 data points annually for PFAS Analytes across the state, and another 168 data points annually for AOF in the influent and effluent at these facilities.

In addition, EPA also proposed to require that industrial users falling into PFAS use categories will also be sampled annually for PFAS Analytes, representing hundreds of more datapoints annually. Durham's relationship with its customers is governed by local ordinances and terms of service. Presently, Durham does not have a local ordinance or term of service that would impose PFAS testing obligations on industrial users in its catchment area. Durham requests 2 years to adopt new ordinances and develop and implement requirements in its terms of service to impose PFAS testing requirements on industrial users.

While we understand data collection is needed at WWTFs to understand PFAS sources and fate in our communities, we request that the extent of monitoring be capped at 2 years during the permit period. A 2-year monitoring cap will generate over 700 PFAS related datapoints in NH medium facilities and hundreds of other datapoints from industrial users in these sewersheds that EPA may use in understanding geographic and temporal fluctuations of PFAS. A 2-year monitoring cap would ease the financial burden, sampling effort, and reporting burden resulting from this requirement. If during this monitoring period, a significant source of PFAS was identified, we would coordinate with EPA and NH DES for additional sampling beyond the finalized PFAS monitoring period.

Response 136

See Response 49.

Comment 137

New PFAS Monitoring Requirements - Analytical Methods - Part II.A. 1, note 14

Proposing analytical methods for PFAS in this Draft General Permit is premature. In December 2024, the EPA proposed a methodological revision to Method 1633 for Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS, which is now entitled Method 1633, Revision A (1633A). This proposed method is still out for public comment. The December release follows five previous revisions of Method 1633 over a

3.5-year period, including a multi-lab validation. The release of this revised analytical method occurred after the EPA posted the notice of availability of the Draft New Hampshire Medium Wastewater Treatment Facility General Permit (November 13, 2024). The EPA proposes in the Draft Medium WWTF GP: "Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633." The EPA further states on its web site (CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances (PFAS) | US EPA): "While the method [Method 1633A] is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking, the EPA recommends it now for use in individual permits". Similarly, Method 1621 for Adsorbable Organic Fluorine is not nationally required for CWA compliance but recommended for use in individual permits.

The New Hampshire Environmental Laboratory Accreditation Program (NHELAP) provides primary and secondary accreditation to environmental laboratories located within and outside the state to ensure sufficiently accurate, precise and consistent results of analyses. Although both EPA Method 1633A and 1621 are recommended for use in individual CWA permits, both have undergone significant revision and validation over a short period. Method 1633A and 1621 were both proposed for approval at 40 CFR Part 136.3 in December 2024, but their approval remains pending. (In fact, the comment period for this proposed rule has been extended for 60 days.) Currently, no labs are accredited for Method 1633A and 1621 through the NHELAP. Only 7 labs are accredited through the NHELAP for Method 1633, and all of these are located outside New Hampshire.

Analytical laboratories serving New Hampshire POTWs already have extended turn-around times for PFAS analyses. The volume of samples proposed to be generated through the PFAS monitoring requirements in this permit would place additional pressure on an already constrained commercial laboratory network. These laboratories serve numerous states, and this monitoring requirement would add thousands of samples per year from NH POTW and their industrial users. This will undoubtedly result in: (a) extended hold times, which reduces data quality and reliability, and (b) long turn-around times for data, which impacts data reporting requirements at these facilities.

We request that EPA delay implementing any PFAS monitoring requirements until (a) Method 1633A and 1621 are promulgated in 40 CFR Part 136, Guidelines for Establishing Test Procedures for the Analysis of Pollutants, and (b) the NHELAP is able to assess and accredit in-state laboratories for these two EPA methods for state water quality monitoring purposes.

Response 137

See Response 50.

Comment 138

New Pollutant Scan Monitoring Requirement- Frequency and Cost- Part II.A. 1.

The Draft Medium WWTF GP proposes to require the Town conduct a Pollutant Scan for more than 100 analytes listed in Attachment I for effluent and ambient samples on an annual basis during the permit period. It further proposes in Part II.1.7 that Durham "Perform three pollutant scans for the pollutants listed in Attachment I, using a representative composite sample once

per quarter in the final three full calendar quarters of the 5-year permit term," Assuming Part II.1.7 refers to effluent samples, this would result in a minimum of 7 effluent pollutant scans and 5 ambient pollutant scans (12 total sampling events) during the 5-year permit cycle. The analytes defined within a pollutant scan are listed in Attachment I and represent a per sample cost of \$850 to \$1,100 for all analytes depending on the analytical lab used.

The extended pollutant scan requirement proposed with this permit is not consistent with pollutant scan requirements for Small and Medium WWTF General Permits issues in Massachusetts and New Hampshire in 2022 and 2023. Facilities in MA and NH that discharge <1 MGD are not required to scan for the pollutants listed in Attachment I. Medium WWTF in MA are only required to conduct three pollutant scans on effluent once per quarter in the final three full calendar quarters of the 5-year permit term.

- Imposing an annual effluent pollutant scan, especially in situations where no new industrial users have been added to the Town's sewershed, serves no purpose. The scan required by Part II.1.7 will sufficiently identify any new pollutants added during the five-year permit term, such that they could be addressed in the next permit cycle.
- The Town of Durham should not be required to test for pollutants in ambient water. The facility is not responsible for background pollutants in the receiving water body. This type of data should be collected by a regional organization or government body, who would be able to follow up with remedial steps should pollutants be identified.

The proposed pollutant scan requirement would cost the Town an added \$12,000 in additional monitoring costs over the permit period. It would also impose an additional \$2,000 per year in monitoring beyond what medium-sized facilities in MA are required to collect. Imposing this general pollutant monitoring obligation exceeds the scope and purpose of a WWTF permit. WWTFs are not responsible for ambient pollutants, and effluent monitoring will be conducted at the end of the permit cycle, therefore annual pollutant scans in both effluent and ambient are not needed to continue to meet water quality requirements.

Based on these concerns, we request that EPA remove the requirement for the annual pollutant scan in both effluent and ambient water, a modification which would make NH WWTFs consistent with MA WWTFs of similar size from a monitoring standpoint.

Response 138

See Response 52.

Comment 139

Whole Effluent Toxicity (WET) Testing- Parts II.A. 1 and II.H.5.

EPA proposes to require the Town to conduct LC50 and C-NOEC testing on a quarterly basis. In Part II.A.1, note 18, EPA states that "if the Permittee identifies or is provided notice of a sudden and significant death of large numbers of fish and/or shellfish in the vicinity of the discharge, the Permittee shall follow the procedures described in Part II.H.5". In Part II.H.5.a, similar language is proposed defining requirements for Accelerated WET Testing.

We request that EPA define "sudden", "significant death", and "large numbers" in the context of this requirement.

We request that EPA allows permittees to request a reduction in WET testing frequency similar to what was permissible in our previous/current NPDES permit: a written request to EPA, requesting a reduction in the frequency of required toxicity testing, after completion of a minimum of the most recent four successive toxicity tests of effluent, all of which must be valid tests and demonstrate compliance with the permit limits for whole effluent toxicity.

Response 139

Regarding the requested definitions, see Response 53.

Regarding WET frequency, see Response 73.

Comment 140

Aesthetics - New Monitoring Requirement- Part II.A

EPA is proposing to require in Part II.A that facilities conduct, monthly, a "visual inspection of the receiving water in the vicinity of the outfall and report any changes that may be caused by the discharge" related to odor, color, turbidity, floating materials, settleable solids, and films/sheens. EPA is also proposing that facilities report complaints of taste/odor and remedial actions to address complaints. Reporting for inspections and complaints would occur at the end of each calendar year.

While the obligation to report on complaints is reasonable, the proposed aesthetic monitoring requirement would place an added, qualitative policing requirement on the Town of Durham. Durham WWTF operators closely monitor effluent water quality for the parameters listed in this requirement. However, the Town has no control of receiving water quality, and requiring staff the added responsibility of policing water quality in the vicinity of the discharge would open the Town up to litigation to changes in water quality that are beyond the WWTF's control. In addition, because visual observations are qualitative and EPA cites no standard protocols or methods for this monitoring, inspection quality would vary with time and staff. Because color only violates water quality standards if it impairs existing or designated uses, observations of color or aesthetics without more information on whether uses were affected are unimportant.

Based on these concerns, we request that EPA remove the aesthetic monitoring requirement, which would make the permit requirements consistent with smaller NH facilities and MA facilities of similar size. In the alternative, as acknowledged in the Fact Sheet for taste and odor, where there is no objective means to measure the impact of the discharge on the receiving water, the permittee should only be asked to simply report any received complaints and actions taken to EPA and NHDES.

Response 140

See Response 54.

Comment 141

Benthic Survey and Details - Part 11.H.6

EPA proposes that for some facilities, a benthic survey be conducted once per permit period. It states that "During the third calendar quarter (i.e., July through September) that begins at least 12 months after the effective date of the permit, a benthic survey shall be conducted for facilities with a dilution factor below 100 once per permit term to assess impacts from the discharge on aquatic life in the benthic environment." Proposed Part 11.H.6 broadly defines the sample locations, the number of required samples, the survey taxonomic level, who can perform the survey, and the deadline for submitting a summary report.

We request removal of the benthic survey requirement from the permit based on the following concerns:

The NHDES⁴ and EPA⁵ have each established standard protocols for conducting benthic habitat surveys in freshwater bodies. These protocols define standard field sampling methods (e.g., install a rock basket), establish laboratory protocols (e.g., through specified taxonomic counts per unit area), and provide a template for data analysis and reporting.

- Any benthic survey requirement should reference a documents articulating a standard protocol for field sample collection, laboratory analysis, and report preparation. The existing protocols are for facilities discharging to freshwater environments, and therefore are not applicable to Durham's discharge to the Oyster River. Accordingly, this requirement should not be applicable to Durham unless and until EPA or NHDES develops a standard protocol(s) for conducting benthic surveys in marine environments. For example, see efforts coordinated through NOAA⁶ for coastal environments.

The methodological ambiguity of the benthic survey would result in a wide range of data collection and analysis efforts. The approach taken for the benthic survey would also be specific to the site and the firm chosen to carry out the survey.

- Because of this ambiguity, a standard approach should be undertaken at the state or federal level, with benthic surveys conducted using the same protocol with site-specific conditions considered from each POTW. Such an approach would greatly reduce the overall cost burden for this requirement, and allow for greater data standardization across facilities, watersheds, and type of aquatic environment.

We have estimated that a survey could cost the Town \$35,000 when no index of biotic integrity is calculated. Advanced financial planning would be required to cover the cost of this survey.

Thus, the benthic survey requirement should not be applicable to Durham until a standard protocol for marine environments is developed and until EPA or NHDES provides a funding mechanism to support a benthic survey. Without such support, this proposed permit condition imposes an unfunded mandate directing the WWTF to incur costs to perform tasks unrelated to its permit and function.

We noted that NHDES has proposed, in Section E of the draft certification, a revision to Part 11.H.6 that would require a benthic survey only upon notice by NHDES or EPA of detrimental

impacts on downstream benthic communities. We suggest that even this requirement would be premature without first determining which water quality standards best correlate to benthic community health and whether levels for water quality should be facility specific. Given that NH water quality regulations may change to accommodate these considerations, we request that EPA not include benthic surveys at this time, and instead allow the NH regulatory process to take its course and then modify the General Permit accordingly.

⁴ NHDES Water Division-Watershed Management Bureau. 2013. NH DES Protocols for Macroinvertebrate Collection, Identification and Enumeration.

⁵ Barbour, M.T., J. Gerritsen, B.D. Snyder, and J.B. Stribling. 1999. Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates and Fish, Second Edition. EPA 841-8-99-002. U.S. Environmental Protection Agency; Office of Water; Washington, D.C.

⁶ NCCOS NOAA National Benthic Inventory. <https://products.coastalscience.noaa.gov/nbi/>

Response 141

See Responses 75, 101 and 155.

Regarding the last paragraph of this comment, EPA notes this is a comment on the State 401 certification and notes that NHDES has responded to such comments in the issuance of their final 401 certification. As described in the responses referenced above, EPA has made several changes to this provision in the Final General Permit to address these concerns.

Comment 142

Operation and Maintenance (O&M) of the Sewer System- Part II.C.2.e & 3

In Part II.C.2, of its Permit, EPA proposes that the Town be required to operate and maintain the sewer system through the following specific measures: maintain adequate maintenance staff, perform preventative maintenance, control inflow and infiltration (I/I) to separate sewer collection systems, map the wastewater collection system, prepare and implement a collection system O&M plan, report unauthorized discharges, and maintain alternate power where necessary. EPA further proposes in Part II.C.3 that the Town be required to summarize the activities toward implementation of O&M plans in an annual report.

Over the past 10-15 years many NH communities have received this O&M requirement in their individual permits. The Town does not have these O&M tasks because their permit has not been renewed since 1999. This requirement would be an additional burden on top of the significant efforts that would be required for the proposed new sampling and analytical reporting, Adaptation Plan development, and complying with the new copper limit.

Therefore, we request an extension to Part II C.2.e.(1) Sewer System Operation and Maintenance Plan from 6 months to 12 months from the effective date to submit the required items. This additional time will be needed for the Town to scope this significant additional work, put it out to bid (if applicable), and develop an effective and useful deliverable.

Response 142

EPA agrees that extending this deadline from 6 months to 12 months is reasonable given the variety of permit changes associated with this General Permit. Therefore, EPA has extended this deadline for all four WWTFs that are receiving this requirement for the first time (*i.e.*, Durham, Dover, Somersworth, and Jaffrey). The Final General Permit has been updated accordingly.

Comment 143

Adaptation Planning- Part I.C.1

The Draft Medium WWTF GP Part I.C.1. proposes requiring the permittee and co-permittees to develop Adaptation Plans. This requirement would impose an undue burden on the Town of Durham. The proposed Adaptation Plan is quite comprehensive and would include three primary components. Each has a mandated timeline and would require significant resources. Identifying critical assets, assessing adaptive measures, and preparing an implementation and maintenance schedule within the specified timeframes can be a major demand on permittees and co-permittees with limited staff and budget. In addition, there is considerable ambiguity with respect to budget commitment and priorities under the current administration that could have a significant impact on the availability of federal funding for climate-related planning activities.

The proposed Adaptation Plan does not include provisions for funding or financial support for permittees. Undertaking vulnerability assessments, adaptive measures assessments, and the subsequent implementation and maintenance schedules would likely require considerable financial investments. Limited federal or state funding will lead many permittees and co-permittees to consider this an unfunded mandate. As more permittees and co-permittees receive new permits, there is a need for a program to fund all components of the Adaptation Plan.

Current federal and state funding requires the permittees and co-permittees to apply for and secure a loan or grant award, as well as obtain borrowing authorization before they can complete eligible portions of the Plan within the mandated timeline. Based on the size and scope of the Adaptation Plan outlined in the permit, the mandated timeline is not sufficient. The rigid timelines proposed for each component of the Adaptation Plan, even when Part I.C.1.b. (Credit for Prior Assessment(s) Completed by Permittee and/or Co-Permittee(s)) is considered, may not fully address the variations in capacity and complexity of systems managed by permittees and co-permittees. Allowing flexibility would be beneficial and enable permittees and co-permittees to adjust the process to meet their specific needs.

Component 3: Implementation and Maintenance Schedule proposes to require permittees and co-permittees to submit a proposed schedule along with details on funding sources for adaptive measures. This could result in a long-term financial burden, particularly if the identified adaptive measures are expensive or if funding sources are not readily available. If funding is challenging, other asset management priorities may need to be deferred, which could exacerbate existing, known issues.

In particular, it is not clear if there will be federally-backed funding available through the New Hampshire's Clean Water State Revolving Fund ("CWSRF"). CWSRF funding is a primary vehicle for financing WWTF improvements and obligations. The CWSRF, which receives funds allocated by EPA, provides low-cost financial assistance for planning, design and construction assistance for wastewater infrastructure projects. While at the time of submitting this comment there is ambiguity regarding the legality of the current administration's initiative to halt payments on federal grants and loans approved under various previously authorized programs. If access to the CWSRF is terminated or curtailed, this could impair the Town's ability to undertake system-wide planning and improvement efforts to comply with the Adaption Planning requirements in the permit.

In the ordinary course, Durham considers adaptation and resiliency issues when it procures new equipment or develops infrastructure assets. Beyond this prudent management practice, Durham requests that EPA remove the system-wide adaptation planning requirements that go beyond its current prudent management practice. As written in the Draft Permit, the adaptation planning requirements may not be consistent with current federal policy, and therefore might not be eligible for CWSRF funding. If adaptation planning requirements are in the Final Permit and Durham and the other permittees will not be able to utilize federally-backed loans, they will be out of compliance with this unfunded mandate.

Response 143

See Response 2.

Comment 144

Standard Conditions

In Part VII .A.1.a of the Standard Conditions, EPA states that "Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement."

This is an exceedingly far-reaching condition that would essentially require facilities to comply with changes to the toxic pollutant list and associated requirements under Section 307(a) of the Clean Water Act, even if those standards do not exist and are not incorporated into this NH Medium General Permit at the time of issuance. Given the example of the recent emergence of PFAS as a toxic pollutant, there is considerable risk in accepting this proposed permit provision. PFAS are being proposed to be regulated at the parts per billion level and the analytical costs for PFAS sampling are extremely high. Similarly, treatment methods for removing PFAS are only now being developed, and cost implications for WWTFs are huge.

The example of PFAS demonstrates the risk posed by this proposed standard condition. It could leave permittees exposed to innumerable new effluent standards or prohibitions related to as yet unregulated substances. This circumstance creates an untenable expectation that facilities

will need to anticipate and plan for future (unknown) federal or state water quality standards, sludge standards, or other permit limits. It also negates the long precedent of NPDES permit writers applying site specific criteria and facility specific compliance plans for POTWs to meet new water quality regulations. This language is especially concerning in the context of EPA's recommended Draft Ambient Water Quality Criteria for the Protection of Human Health⁷ and the Draft Sewage Sludge Risk Assessment⁸.

The ability to meet water quality or sludge/biosolids standards for PFAS could require considerable planning by the Town, therefore having the opportunity to respond to limits within the NPDES permitting process is essential.

Against the already unpredictable landscape caused by the new copper limit, many new monitoring and reporting demands and obligations, and uncertain funding for system-wide improvements, Durham respectfully requests that EPA eliminate this open-ended directive that will expose the WWTF to unforeseen costs and liabilities. For prudent administration of its facility under the General Permit, operators, like Durham, need predictability during the permit period to plan and allocate resources.

Alternatively, if the condition remains, we request that EPA recognize an exception for PFAS so that any water quality or sludge/biosolids standards for PFAS are not subject to this standard condition, but rather must go through a formal permit modification process.

⁷ EPA, 2024. Draft National Recommended Ambient Water Quality Criteria for the Protection of Human Health for Perfluorooctanoic Acid, Perfluorooctane Sulfonic Acid, and Perfluorobutane Sulfonic Acid, Federal Register, 2024-30637 (89 FR 105041).

⁸ EPA, 2025. Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) CASRN 335-67-1 and Perfluorooctane Sulfonic Acid (PFOS) CASRN 1763-23-1. EPA-820P25001.

Response 144

See Response 56.

S. Comments from Paul Micali, Town Manager, Town of Merrimack, February 12, 2025.

Merrimack's comments on the Draft General Permit are provided in two attached memoranda. The first was prepared by Wright Pierce and discusses Town concerns with the General & Standard Conditions, Effluent Limitations and Monitoring Requirements, and New Requirements for the Industrial Pretreatment Program and Industrial Users. The Wright Pierce memorandum includes specific revision requests that would be incorporated from the Draft General Permit into the Town's Draft Authorization ("WP Comments"). The Osprey Owl Environmental LLC memorandum provides additional comments on PFAS and AOF Requirements, Total Recoverable Copper, Adaptation Planning, Toxicity Violation Procedures, and Benthic Survey which comments provide additional support for the specific requests set forth in the Wright Pierce memorandum ("OO Comments"). Finally, the Town prepared detailed comments on the Draft Authorization which expand upon the points raised in the Wright Pierce and Osprey comments and incorporate additional requests for revisions to the Draft General Permit and/or the Draft Authorization. Merrimack's comments on the Draft

Authorization includes Appendices A-D with supporting documentation ("Town Comments").

Comment 145

Effluent Limitations and Monitoring Requirements

BOD5:

The Town contract with Anheuser Busch (AB) allocates their flows and loads. The contract is in effect until 2025. Although AB flow and loads have reduced during the most recent permit term, the beer industry is down 25%. Per EPA's request, the Town obtained data regarding AB beer production for the previous 5 years at its Merrimack facility and provided that information to the EPA. Based solely on this data the proposed loadings for TSS and BOD were reduced in the draft authorization. Although beer production is down to a generational low, it seems plausible that it will rise again in the future. Arbitrarily reducing the BOD and TSS loadings because of the small window of data provided, will require Anheuser Busch to agree to a reduction in BOD and TSS allocations going forward and/or if there is any increase in production. This will inhibit them from ever expanding production back to current permit levels or to previous levels. Anheuser Busch is one of Merrimack's largest employers and is a significant industrial user for the Merrimack WWTF. EPA should maintain levels in the Town's Draft Authorization that are consistent with the Town's current agreement with AB.

Appendix A contains the following historical documents; *"The Effects of Brewery Waste On the Merrimack Water Pollution Control Facility Merrimack NH"* and the *"Brewery BOD Chart"*. At the time of construction of AB's facility in 1968, the Town and AB entered into a "Special Agreement", which, was reviewed and approved by the EPA and included in Appendix A. The "Special Agreement" stipulated required/anticipated/future flow and loads and required the Merrimack Wastewater Facility to provide wastewater services to the Merrimack Anheuser Busch Brewery. Every Town NPDES permit revision has whittled away at those original flows and loads regardless of treatment performance.

In about 2006, Anheuser Busch installed a Bio-thane digester on their site to take advantage of the high strength BOD of their waste stream to generate electrical power. The result of this change was two-fold at the Town's WWTDL: 1) BOD loadings were significantly reduced and 2) ammonia and TKN increased dramatically because of the digester. It was at that time that the Roughing Trickle Filter was taken off line here at the Merrimack WWTF. Part of this change at the two facilities has required, that should Anheuser Busch need to bypass their digester system, they rely on the Merrimack WWTF as their final calamity protection, whereby the Merrimack WWTF diverts the untreated high waste flows to our equalization tanks to protect the treatment process. The brewery "BOD Chart" included in Appendix A gives a clear understanding of the significance of the loadings.

The further reduction of BOD and TSS in our NPDES permit is unnecessary at this time because AB flows and loads are down anyway. Merrimack requests that the EPA hold the BOD and TSS values at levels consistent with the Town's current agreement with AB to give Anheuser Busch and the Town of Merrimack the time to renegotiate their "Special Agreement" later in 2025.

Not changing these values does not do harm to the Merrimack River and is sufficiently protective.

Response 145

There are two key points to clarify in response to this comment. First, EPA has exercised its discretion to apply a regulatory provision, 40 CFR § 133.103(b), for the benefit of the Town to allow for less stringent TSS and BOD limits. This provision allows for TSS and BOD limits for POTWs to be adjusted to be less stringent when flow or loading of these pollutants to the POTW from an industrial source exceeds 10 percent of the overall design flow. EPA has elected to apply this provision to the Town's benefit. If EPA were to decline to exercise its discretion in applying this provision, the Town would receive TSS and BOD limits at the standard secondary treatment levels which would be more stringent.

Second, to the extent EPA is analyzing the Brewery's loading of TSS and BOD it is solely for the purpose of calculating the allowable *increase* in TSS and BOD limits for the Town's POTW discharge. This permit does not directly regulate or limit the Brewery's discharge to the POTW. That is a matter for the Town to address pursuant to its pretreatment program. As described in more detail below, there is nothing in this Permit that would limit the Town from proceeding with its current contract with the Brewery regarding its allocated flows and loads.

In order to calculate the proportionate level of upward adjustment of the TSS and BOD limits, EPA carried forward the approach used in prior permits for the Town. As in prior permits, EPA looked to the best available data to assess the current TSS/BOD loading of the Brewery to the POTW. Because the application of § 133.103(b) is an upward adjustment to reflect actual loading from an industrial contributor, actual levels of current production must be used to ensure current levels of treatment is adequate. The best available data to estimate current production values was provided as the 2019-2023 actual production values. Notably, after reviewing all of the comments received on this Draft General Permit, EPA did not receive any other data or estimated values (*e.g.*, projected production values for the next 5-year permit term) so the 2019-2023 actual production data is the best and only available data for this analysis.

However, based on this comment, EPA reevaluated the production data supplied by the Permittee. From 2019 through 2023, the average was 5,711 barrels per day, but the peak year was 2022 with an average of 6,442 barrels per day. EPA considers that the use of the peak year of the recent data is reasonable and will provide flexibility for changes in production within the range of current production levels. Therefore, EPA updated the analysis using this recent peak production level. The resulting BOD limits are 1,265 lb/day (monthly ave) and 2,497 (daily max), and the resulting TSS limits are 1,448 lb/day (monthly ave) and 2,946 lb/day (daily max).

Each of these limits are more stringent than the limits in Merrimack's 2014 individual permit (though still less stringent than secondary treatment standards alone), except the

monthly average BOD limit which was 1,199 lb/day in 2013 (which is even more stringent than applying secondary treatment standards directly). Given that the special condition at 40 CFR 133.103(b) is intended to only adjust BOD and TSS limits *upward*, EPA finds that this monthly average BOD limit that is lower than secondary treatment standards must have been a technical mistake in a previous permit reissuance. Anti-backsliding exception at 402(o)(2)(b)(ii) applies given that the previous calculation must have been a “technical mistake.” Therefore, each of these newly calculated limits have been applied in the Final General Permit.

Finally, EPA again reiterates that the allocation for AB’s contribution in EPA’s analysis is not a pretreatment limit. Further, the Permittee is not required to establish a pretreatment limit for AB that is equivalent to the allocation in EPA’s analysis but may, at its discretion, establish a local limit based on AB’s design capacity. EPA notes that the 2019-2023 discharge levels from the POTW are well below the proposed load limits. In fact, the median loads were all approximately 10% of the proposed limits and even the maximum values over this time period were all less than half of the proposed limits. With such a large excess discharge capacity, the Town of Merrimack has the discretion to allocate larger amounts of BOD and TSS loading to AB (or other industrial users) as local limits as long as the design treatment capacity at the POTW is not exceeded, and the POTW continues to comply with the final effluent limits in this permit.

Comment 146

Nitrogen Monitoring Requirement:

Anheuser Busch has a Bio-thane Digester and contributes a significant amount of ammonia and TKN to the Merrimack Wastewater Influent. This process has been on line since 2006. The Town implemented significant upgrades that were completed in 2006 in order to address ammonia and TKN. In addition, AB’s use of nitric acid in their cleaning process also adds nitrogen to Merrimack’s loadings.

Merrimack understands the monitoring proposed in the Draft Authorization but is unsure of the direction EPA will take in regards to effluent ammonia. Since the Town treats Brewery Waste what impacts will monitoring now cause to AB flows and loads that the Town accepts from AB? Similar to BOD and TSS loadings from AB, the nitrogen loading in the near term may not be representative of AB’s capacity due to current reduced production. Any permit limits developed using a short timeframe is not likely to be representative of AB’s capacity or their agreement with the Town. This is important to understand in the near term because, as discussed above, the Town and AB must renegotiate the agreement this year.

Response 146

EPA understands the concerns regarding potential future limits for nitrogen. At this time, EPA is not able to speculate whether such limits are necessary or the level of such potential limits. Similar to Response 145, EPA must make decisions based on actual data (*e.g.*, nitrogen loads) from all sources and not hypothetical loads based on agreements outside the scope of the permit.

Comment 147

Total Recoverable Copper:

Merrimack contracted the consulting firm Osprey Owl Environmental to develop and enact a Quality Assurance Program utilizing “Clean Sampling” protocols over the summer of 2024. This effort was undertaken to provide a robust dataset for the EPA to consider in the vetting of a Total Recoverable Copper limit on the Merrimack WWTF. The proposed Total Recoverable Copper limit presented by the EPA in the Draft General Permit utilizes copper results from 4 years of Merrimack’s annual WET analysis. The WET analysis sampling conducted by Merrimack WWTF staff was not conducted under a strict quality assurance program and should not be considered as quality data for the development of NPDES permit limits.

With the use of the dataset from the WET analysis the EPA determined a need for protection of the waterway and proposed a Copper limit of 2.4 ug/L. However, based on the aforementioned clean sampling results, the waterway’s background copper level does not exceed chronic water standards. The results showed a median copper concentration of 0.5 ug/L, which, is about 25% of the listed chronic limit of 2.1 ug/L. Averaging the monthly data provides a copper result of 1.075 ug/L, which, is slightly over half the chronic limit of 2.1 ug/L. See Spreadsheet attached as Appendix B.

The Anheuser Busch Brewery which makes up about 30% to 50% of Merrimack’s daily flow, utilizes Pennichuck water for their Beer Production. Looking at the spread sheet from Pennichuck Water (Appendix B) which conducts water quality testing at their intake station upstream of the Merrimack Wastewater Facility, shows annual data from 2019 to 2024, with a copper result that is consistently <0.01 mg/l. This equates to 10 µg/L which is 376 % over the chronic limit. Also in Appendix B is the Pennichuck Water, Quality Report for 2023, the value for copper is 0.013 mg/l which equates to 13 µg/L which is 519 % higher than the chronic limit.

Merrimack is also concerned with the implications of enacting traditional copper reduction source control strategies. These strategies aim to control the introduction of copper through septage and source water which are significant contributors of copper in POTW Influent.

“Given that wastewater effluent discharge limits are so low, and copper contributions to WWTP’s from plumbing corrosion are relatively high, it may be wise for communities to take a closer look at corrosion control practices when planning to reduce copper in wastewater effluent.” Source information: Copper in the Urban Water Cycle Nicolle Sprague and Marc Edwards Department of Civil and Environmental Engineering, Virginia Polytechnic Institute and State University, Blacksburg, VA 24060, USA

<https://vtechworks.lib.vt.edu/server/api/core/bitstreams/9307cf63-9939-4496-85ee-5cb287060b77/content>

The Merrimack WWTF receives and treats septage from 9 surrounding communities. Septage contains many copper sources such as pipe corrosion and homeowner chemicals like root killers. These chemicals can be a significant source of copper loading and there are no enforceable standards prohibiting homeowners from purchasing and using these products.

It is important to note that the Town received NHDES Revolving loan funds during its Phase I upgrade in 2006 to build the current septage receiving station. The receipt of those funds was contingent on providing septage treatment to those communities. The Town has signed Inter-Municipal agreements with the following 9 communities, Amherst, Brookline, Hollis, Mont Vernon, Lyndeborough, Temple, Greenville, Wilton, Mason, to allow their septage to be brought here. Merrimack treats about 4,000,000 gallons of septage per year. If the Town were to stop taking septage from these communities in order to comply with the proposed copper limit then those communities which are required by the statute (RSA 485-A: 5-b I, and RSA 485-A:5-b II) to provide septage disposal to their residents, would either have no outlet or would be forced to find other disposal sites during and despite the term of their existing agreements with the Town. https://www.youtube.com/watch?v=WIN_bwzBaJI

The clean sampling data provided by the Town makes clear that there is not currently a copper issue in the Merrimack River. Consequently, and given the other issues discussed above, EPA should remove this requirement.

Response 147

See Response 184.

Comment 148

Adsorbable Organic Fluorine:

The Draft Authorization states on its face that there is currently no approved method for AOF. At the time of the issuance the promulgation process has not been completed. In the rule (URL; [View Rule](#)). There is no Final Action on the CWA Methods Update Rule for the Analysis of Contaminants in Effluent regarding PFAS and a method-defined parameter for adsorbable organic fluorine. As stated, 'Final Action' is 'To Be Determined.'

After the Tables listed in, II General Permit Requirements, A. Effluent Limitations and Monitoring requirements, there are 26 associated footnotes. Footnote 2. reads, *"In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter."*

PFAS compounds have been in existence for more than 70 years and have been used extensively and are still being manufactured and used. Merrimack does not understand why we are rushing to force municipalities to spend already limited funds on testing that is not fully vetted. There is no clearly defined result for the millions of dollars in required sampling and testing and there is no enforceable pretreatment standard.

Consequently, Merrimack requests that these parameters be removed from the Draft Authorization until promulgation is complete and pretreatment standards are in place.

Response 148

See Response 11.

Comment 149

PFAS Analytes:

EPA's position nationally appeared to have only wastewater treatment plants >10 MGD to begin testing for PFAS and Adsorbable Organic Fluorine. On the EPA website established specifically for the 'POTW Influent PFAS Study' ([POTW Influent PFAS Study | US EPA](#)) the first Federal Register notice was posted on March 26, 2024, with comments due by May 28, 2024 ([Federal Register :: Proposed Information Collection Request; Comment Request; POTW Influent PFAS Study Data Collection](#)). Questionnaires were going to be sent to 400 of the largest WWTPs out of the 12,000 in the US with mandatory responses being required. Groups of 200 to 300 plants would be asked to conduct specific sampling in two phases.

The Phase One expectation cited, "Phase 1 will require each selected POTW to collect and analyze one-time grab samples of industrial user effluent, domestic wastewater influent, POTW influent, and POTW effluent for forty specific PFAS and adsorbable organic fluorine (AOF). For each POTW selected, the EPA intends to specify no more than ten industrial users for which the POTW must collect and analyze effluent samples. The total number of industrial users sampled as part of the sampling program is not expected to exceed 2,000 facilities. Phase 2 will require selected POTWs to collect and analyze one-time grab samples of sewage sludge for forty specific PFAS and ancillary parameters."

Phase I was expected to begin in 2025. Requiring 200 plants to each have ten industrial users test for 40 PFAS plus AOF equates to 2,000 samples. If Phase I includes 300 plants, then that equates to 3,000 tests. The Phase I Study calls for a one-time grab samples of each industrial user's effluent, POTW influent, and POTW effluent (so each would be doing three grab samples). Phase I could result in a total of 6,000 and up to 9,000 samples for PFAS and AOF.

The Office of Management and Budget calculated the cost for this sampling and analysis effort. The labor associated with this effort was estimated at 25,640 hours and a financial cost of \$5.5 million dollars. This estimate only considered administrative costs and sampling field work. The current cost for one PFAS sample is approximately \$500.00.

The cost for AOF is approximately \$440.00. The total cost per test is \$3,055.38. At 18 required tests annually that cost to each MGP WWTP would be \$54,997.84 per year per test. Further, if the results of this PFAS testing is to be used to eventually develop a permit limit then clean sampling should be utilized. Because clean sampling requires field and rinse blanks in addition to the grabs, it will triple the sampling cost to \$164,993.52 per year.

Has the EPA researched the availability of laboratories to conduct all this testing? It should be noted that the Draft 2026 Multi Sector General Permit has a proposed quarterly PFAS sampling

requirements in every sector as well. This requirement will further exacerbate the overloading of available laboratories and impact the quality of testing and reliability of results if labs are continually scrambling to complete all these tests on time and will ultimately further drive-up cost.

As discussed above, EPA should implement an enforceable pretreatment limit for PFAS compounds and AOF before requiring such a cost and labor-intensive initiative. Merrimack requests removal of this requirement from its Draft Authorization pending EPA implementation of enforceable pretreatment standards and ensures that there is enough laboratory capacity to handle testing for compliance with those standards.

Response 149

See Responses 6 (cost), 12 (national study), and 50 (lab availability).

Comment 150

PFAS Analytes Sludge:

Merrimack has a composting facility that produces a Class A, Low Metals Compost and already conducts 4 Quarterly Samples for PFAS in our compost as required by the Massachusetts Department of Environmental Protection from whom the Merrimack WWF holds an Approval of Suitability. In addition, the NHDES has been conducting one sample set annually for our NH Sludge Quality Certification which equates to up to 5 sample sets per year. Merrimack completes bio-solids reporting to the EPA, NHDES and the MADEP based on our final compost production. This requirement as currently written is redundant and increases testing costs unnecessarily.

Merrimack requests that this parameter be removed as long as we continue to compost and maintain, at a minimum, our NHSQC Certification. Should EPA retain this parameter, Merrimack requests revision of its Draft Authorization to specify that its current results of PFAS testing for its NHSQC Certification suffice to meet this requirement.

Response 150

EPA understands that the Permittee has multiple PFAS monitoring requirements outside the scope of this NPDES permit and, to the extent possible, would like to avoid any duplicative requirements. EPA clarifies that any PFAS monitoring taken during any calendar quarter using Method 1633 may also be used for monitoring under this permit. EPA does not consider that this clarification necessitates any change to the Final Permit.

Comment 151

Footnotes to Effluent Limitations and Monitoring Requirements:

pH Footnote 8, page 7:

As requested by NHDES in its Draft Water Quality Certification for the Draft General Permit at page 5, Section E(1) which is attached as Appendix C, Merrimack requests authorization to conduct a demonstration satisfactory to NHDES to modify the pH range as allowed in at least the previous three permits. The Merrimack authorization is built around the Draft Brewery

Guidelines because the AB brewery represents a significant portion of flows and loads. This approach gives Merrimack the needed leeway to manage high and low pH flows from Anheuser Busch during upset conditions at their facility as required by the currently effective and EPA reviewed "Special Agreement" between the Town and AB, discussed in greater detail above.

Response 151

See Response 9.

Comment 152

Chlorination Footnote 11, page 7:

The first paragraph states: "The Permittee shall minimize the use of chlorine while maintaining adequate bacterial control."

The next paragraph states; *"Any interruption or malfunction of the chlorine dosing system that may have resulted in levels of chlorine that were inadequate for achieving effective disinfection."*

The e-coli test is the gold standard for measuring the effectiveness of a sufficient bacterial kill, whether utilizing Chlorine, Hypochlorite or UV, and it is a 24- hour test. To know whether there has been inadequate chlorine would require an e-coli test at every excursion. Is this the intent? The whole paragraph is vague and lacks clear guidance and leaves room for a wide interpretation on what is the minimum amount of chlorine that is needed to achieve an adequate kill. There are certain times of the year where no chlorine may be needed to meet the E-coli limit and there are other times where significantly more hypochlorite than what a plant may normally use will be required. Are some plants still granted seasonal disinfection limits?

Further into the paragraph it states; *"or interruptions or malfunctions of the de-chlorination system that may have resulted in excessive levels of chlorine in the final effluent".* This is another very vague and unquantified requirement that implements no parameters or assessment guidelines. The absence of specifics leaves Merrimack to guess at what constitutes "excessive." For instance, our permit limit is 1 mg/l max and 0.85 monthly average. Does this new authorization require reporting any time Merrimack goes over 1.0 mg/l for even a minute or ten minutes or is it 0.85 which is our monthly average? Is the EPA willing to take into consideration a plant's 7Q10 dilution to calculate the maximum Cl₂ residual over the permit limit that is allowable for a set amount of time? Excursions will happen and Merrimack requires clear reporting standards based on impacts to water quality. Low or even no chlorine situation does not necessarily mean there is an e-coli violation- an e-coli test would be necessary to establish compliance or non-compliance.

Merrimack acknowledges that the EPA accepts many online Chlorine Residual Monitors, such as the HACH CL17, which is a colorimetric unit, and others are amperometric, for Cl₂ reporting. It should be noted none of these units are perfect and can be susceptible to all types of interference based on a particular analyzer. There are many other variables in these systems

which vary from plant to plant such as flow to the analyzer, chemical feed pumps, reagents and tubing, many of these units' pace on flow and trim on residual.

Because of the Anheuser Busch Brewery impact on Merrimack's flows, Merrimack still conducts grab samples for permit Chlorine Residual reporting. This is conducted in conjunction with collecting e-coli samples, as required in our current permit. The residual is run on Photo Spectrometer in our lab which is NELAC Certified and calibrated daily. This is the most effective means of determining whether a proper Chlorine dose has been added and if there is sufficient kill.

Merrimack believes on-line monitors are a good process control tool, but there are too many variables with on-line meters. Every POTW is laid out differently, so, utilizing standard language for all POTW's is flawed. These variables raise confidence concerns regarding these systems reliability, when required to report on every excursion above and below a certain value.

The language in the current Standard Conditions 2007 Appendix B, of Merrimack's current permit, *Proper Operation and Maintenance* states that; *"The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control"*

Merrimack believes the current language is sufficiently protective and includes the Chlorination and De-chlorination systems, but could understand adding language that would seek to ensure proper operation and maintenance specific to; *Chlorination and De- Chlorination systems must be kept in good working order and that there should be a documented preventative maintenance program based on the manufacturers recommendations, any malfunction that has been shown to cause an e-coli violation based on a 24 hour e-coli test or an excursion beyond the permit limits lasting for a "defined amount of time" should be reported to the EPA and NHDES in the same manner as an e-coli violation.* Merrimack requests revision of its Draft Authorization accordingly.

Response 152

This comment seems to imply that this provision requires the Permittee to report any time chlorine levels may have been too high or too low. EPA clarifies that this provision only requires reporting due to chlorination or dechlorination "system interruptions or malfunctions" which may have resulted in inadequate disinfection or excessive levels of chlorine. Contrary to the comment, this provision does not include times when the systems are operating properly. Further, this provision does not require any additional effluent monitoring.

Regarding seasonal disinfection, EPA is not aware of any NH permits with seasonal disinfection limits.

Comment 153

AOF and PFAS Reporting and Testing Standards Footnote 14, page 8:

As discussed above there is currently no approved method for AOF or PFAS. At the time of the

issuance of the Draft Authorization, the promulgation process has not been completed. In the rule (URL; [View Rule](#))¹, there is no Final Action on the CWA Methods Update Rule for the Analysis of Contaminants in Effluent regarding PFAS and a method-defined parameter for adsorbable organic fluorine. As stated, 'Final Action' is 'To Be Determined.'

After the Tables listed in, II General Permit Requirements, A. Effluent Limitations and Monitoring requirements, there are 26 associated footnotes. Footnote 2. reads, *"In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter."*

Without an approved method, testing results are indefensible per the above. Merrimack requests that this parameter be dropped, as discussed above, until such time as there are pretreatment standards and authorized testing methods.

Response 153

See Response 11.

Comment 154

Receiving Water Inspections Footnote 24, page 9:

This requirement is impracticable for Merrimack because its outfall is in the middle of the Merrimack River located on the river bed, see attached outfall drawing (Appendix D). There is constant flow over the discharge manifold, this request would require a boat, we cannot conduct any of these required observations from the banks of the Merrimack.

Further, the requested observations are open to wide interpretation. It should be further noted that any number of persons, point or non-point sources could contribute to some of the items listed. Are POTW'S now being made responsible for policing the Merrimack River and for everything that may float by from upstream?

Per The Navigable Waters Protection Rule: Definition of "Waters of the United States" Final rule published in the Federal Register, Tuesday, April 21, 2021:

DEPARTMENT OF DEFENSE Department of the Army, Corps of Engineers 33 CFR Part 328 ENVIRONMENTAL PROTECTION AGENCY 40 CFR Parts 110, 112, 116, 117, 120, 122, 230, 232, 300, 302, and 401 [EPA-HQ-OW-2018-0149; FRL-10004-88- OW] RIN 2040-AF75 The Navigable Waters Protection Rule: Definition of "Waters of the United States"

The responsibility for policing navigable waters primarily falls to the U.S. Coast Guard, which enforces maritime laws, ensures safe navigation, and conducts search and rescue operations. Additionally, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers play significant roles in regulating and enforcing laws related to water quality and the

protection of navigable waters under the Clean Water Act. Local and state agencies may also have roles in managing navigable waters within their jurisdictions.

This federal rule squarely places the primary policing of navigable waters of the United States and not on POTWs like the Merrimack WWTF.

Merrimack further notes that the following parameters, as proposed for observance from the middle of the Merrimack River, are unduly vague:

- a) **any observable change in odor** (this is very broad and vague with no guidance on specific odors of concern)
- b) **any visible change in color**, (rivers frequently change color after high or low flows or rain events and for many other reasons including the amount of sun versus cloud)
- c) **any visible change in turbidity** (Has there been a baseline determination made as to the seasonal variation in the turbidity of the Merrimack River? Will the EPA publish a guidance document for this? Historically most POTWs have spring and fall upsets due to changing water temperatures and other uncontrollable factors, flows are traditionally higher in the Spring and Fall when plants are having upset conditions. How will plants differentiate this?)
- d) **the presence or absence of any visible floating materials, scum or foam**, (Again Merrimack's discharge is in the middle of the Merrimack River which regularly has floating material both natural and manmade)
- e) **the presence or absence of any visible settleable solids**, (it is very likely that there are settleable solids at the bottom of the Merrimack River where the Town's outfall is located. It is not clear that observations of settleable solids on the surface would be caused by the Town's outfall.)
- f) **the presence or absence of any visible film or sheen on the surface of the water**. (It is not clear that the presence or absence of a sheen or visible film on the surface would be caused by the Town's outfall on the bottom of the river)

Merrimack requests removal of these requirements as void for vagueness and because they are arbitrary and capricious given that there is no apparent connection between the existence of these conditions and the Merrimack WWTF. Merrimack is not objecting to its duty to report upsets which would capture concerns caused by the Merrimack WWTF which might cause the above conditions.

Response 154

Regarding access to the discharge location, see Response 54.

Regarding the objection to "policing" the receiving water, see Response 54. Additionally, EPA notes that the citation in the comment indicates that *"the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers play significant roles in regulating and enforcing laws related to water quality and the protection of navigable waters under the Clean Water Act."* EPA considers that this permit requirement is directly related to

regulating water quality of navigable waters under the CWA, which is clearly justified by this citation.

Regarding the concern that the parameters proposed for observation are unduly vague, see Response 54. EPA intentionally leaves room for the discretion of the Permittee to make these observations. However, EPA notes that each of these observations must only be included if they “may be caused by the discharge” as noted in footnote 24 of Part II.A.1. Most of the concerns raised in this comment (e.g., odors of concern, color changes in the river due to high or low flows, seasonal variation, natural floating material, settleable solids not caused by the discharge, oily sheen not caused by the discharge) are examples that would not need to be described in the annual report. In other words, if the Permittee can identify that another upstream source is likely responsible for the observed changes in the receiving water then they are not required to report this change in the annual summary. Alternately, the Permittee may include these observations in the annual summary with a note describing the likely source. On the contrary, changes caused by POTW upsets (as mentioned in the comment) would need to be reported because this is something caused by the discharge. However, the Permittee may also include a description of the nature of the cause and what (if anything) was done to address it. In each case, EPA recognizes the site-specific nature of these observations and must rely on the discretion of the permittees to identify and report changes that may be caused by the discharge.

Comment 155

Benthic Survey Footnote 25, page 9:

During the third calendar quarter (i.e., July through September) that begins at least 12 months after the effective date of the permit, a benthic survey shall be conducted once per permit term to assess impacts from the discharge on aquatic life in the benthic environment. See Part II.H.6 for more details.

EPA is conducting Benthic Surveys on water bodies throughout the country already through the EPA National Rivers and Streams program. The most recent published technical document for 2018-2019 points out that statistical data is utilized to pick locations and there is a very complicated and robust methodology to the selection process and vetting of the data. This program has clearly defined criteria for who can conduct the survey in order to get meaningful data: *Taxonomy must be performed by a professional freshwater macroinvertebrate taxonomist who, at a minimum, holds and maintains for the duration of the contract a certification from the Society of Freshwater Science for eastern genera in group 1 (Crustacea and Arthropods other than EPT and Chironomidae), group 2 Ephemeroptera, Plecoptera, and Trichoptera nymphs and larvae only) and group 3 (Chironomidae larvae only).*

This program is very specific as to how it is determined where Benthic Surveys are conducted and it is complicated formula, but what jumps out is the following foot note; The National Rivers and Streams Assessment Document 2018-2019, Technical Support Document, Page 13, Foot Note 1 reads:

The NRSA assessment benchmarks have no legal effect and are not equivalent to individual state water quality standards. NRSA condition categories also may not correspond to the categories states and tribes use when they assess water quality relative to their specific water quality standards under the Clean Water Act. For example, a rating of poor condition under NRSA does not necessarily mean a site is "impaired" as defined by state and tribal water quality standards assessment protocols.

This makes it quite clear that POTWS are ill-equipped to conduct benthic surveys. Merrimack's staff are not experienced in implementing state or federal water quality standards under the Clean Water Act. Hiring and training personnel to complete benthic surveys to determine compliance with water quality standards will be time consuming and costly. Based on the EPA's own document, cited above, it is clear that, a "poor rating does not necessarily mean a site is impaired." Thus, even if Merrimack went to the time and expense of hiring and training personnel to complete benthic surveys the results aren't even relevant to Merrimack WWTF operations. Merrimack notes further that Section E(2) of the Draft NHDES Water Quality Certification (included as Appendix C) notes that the existing TSS standards in the Draft General Permit (which Merrimack does not object to) are sufficiently protective of benthic communities and that benthic surveying should be required only where benthic deposits from a discharge are known or suspected to have a detrimental impact on a downstream benthic community thereby necessitating more specific downstream data. Because there is no indication of such impacts associated with the Merrimack WWTF outfall and for the reasons discussed above Merrimack requests that this condition be removed.

Response 155

Regarding who can conduct the survey, EPA notes that the citation provided in the comment regarding certified taxonomist is also included directly in Part II.H.6 of the General Permit.

Regarding the citation that NRSA benchmarks are not necessarily equivalent to state water quality standards, EPA agrees. EPA notes that this distinction is because the NRSA program is a national effort and each state has unique water quality standards with respect to the benthic environment, making it impossible for the NRSA standard benchmarks to match with a wide variety of state water quality standards. EPA clarifies that the purpose of the studies required by this General Permit is to compare such results directly with NH water quality standards for the benthic environment (*i.e.*, Env-Wq 1703.03(c)(1) and Env-Wq 1703.08(b)). Therefore, Part II.H.6 has been updated in the Final General Permit to require the report to compare findings with these standards. Although, to be clear, EPA does not expect that the results of these benthic surveys to be able to be used by NHDES to assess the receiving water segments for impairment of the benthic environment. Rather, EPA does consider that they may identify detrimental impacts to the benthic community for further evaluation by EPA and/or NHDES.

Also see Responses 75 and 101.

Comment 156

Effluent Limitations and Monitoring Requirements Part II(A), # 3 (Pass Through and Interference):

Merrimack agrees with this long-standing requirement but notes that EPA has not set industrial pretreatment standards for industries regarding PFAS compounds. Since EPA is concerned about these compounds and imposes sampling requirements on Merrimack and other POTWs for these compounds then they have an obligation to set enforceable standards that will allow POTWs to control PFAS at the source. PFAS sampling is best completed by the industrial users making or using the chemicals. Industry generates and controls PFAS discharge to POTWs who are the receivers and not the creators of PFAS compounds.

Likewise, Merrimack is still awaiting a decision from the EPA regarding a local limit for Non-Volatile Suspended Solids. Merrimack identified a pass-through interference associated with such suspended solids and expended significant resources developing a local limit to address the issue. EPA conducted a public hearing on May 2, 2023 regarding the proposed local limit. Despite the passage of nearly two years, Merrimack continues to wait for a final decision from the EPA approving the local limit. This delay is complicating things for Merrimack especially now that the EPA is proposing a reduction in TSS in the Draft Authorization.

Merrimack's Pretreatment Program, as required by EPA, mandates control of pass through and interference but EPA has barred Merrimack from achieving that result by failing to develop enforceable Pretreatment standards for PFAS and by failure to act on Merrimack's proposed NVSS local limit.

Specifically, the Pretreatment Program requires that Merrimack must have or develop a legally enforceable municipal code or rules and regulations to authorize or enable the POTW to apply and enforce the requirements of Sections 307(b) and (c) and 402(b)(8) and (9) of the Act and comply with the requirements of § 403.8(f)(1). At a minimum, this legal authority shall enable the POTW

- a. Deny or condition new or increased contributions of pollutants, or changes in the nature of pollutants, to the POTW by Industrial Users where such contributions do not meet applicable Pretreatment Standards and Requirements or where such contributions would cause the POTW to violate its NPDES permit;*
- b. Require compliance with applicable Pretreatment Standards and Requirements by Industrial Users;*
- c. Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users this control shall be achieved through permits or equivalent control mechanism identified as significant under § 403.3(v), as required by § 403.8(f)(1)(iii);*
- d. Require (a) the development of a compliance schedule by each Industrial User for the*

installation of technology required to meet applicable Pretreatment Standards and Requirements and (b) the submission of all notices and self-monitoring reports from Industrial Users as are necessary to assess and assure compliance by Industrial Users with Pretreatment Standards and Requirements, including but not limited to the reports required in § 403.12;

- e. Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and Requirements by Industrial Users. At a minimum, all significant industrial users shall be sampled and inspected at the frequency established in the approved IPP, but in no case less than once per year, and with adequate maintenance of records, Representatives of the POTW shall be authorized to enter any premises of any Industrial User in which a Discharge source or treatment system is located or in which records are required to be kept under § 403.12(o) to assure compliance with Pretreatment Standards. Such authority shall be at least as extensive as the authority provided under section 308 of the Act;*
- f. Obtain remedies for noncompliance by any Industrial User with any Pretreatment Standard and Requirement. All POTW's shall be able to seek injunctive relief for noncompliance by Industrial Users with Pretreatment Standards and Requirements. All POTWs shall also have authority to seek or assess civil or criminal penalties in at least the amount of \$1,000 a day for each violation by Industrial Users of Pretreatment Standards and Requirements in accordance with § 403.8(f)(1)(vi)(A); and*
- g. Comply with the confidentiality requirements set forth in § 403.14.*

As discussed here and above, Merrimack requests that requirement for the testing of PFAS Compounds and AOF from industrial users under the Pretreatment Program, be placed on hold or dropped until there is a pretreatment standard. Merrimack also requests that EPA authorize Merrimack's proposed local limit for Non-Volatile Suspended Solids because that limit directly impacts Merrimack's ability to comply with the reduced TSS effluent limitation in the Draft Authorization.

Response 156

EPA agrees that establishing pretreatment standards is an important step to reducing sources of PFAS and is important in understanding impacts such as pass-through. Although such standards are not available at this time, EPA expects that they may be available in the future and could be applied in a future permitting action. At this time, EPA is requiring PFAS monitoring of both the POTW and certain industrial users to ensure that sufficient data are available at that time to make informed decisions on future PFAS reductions.

Regarding PFAS sampling of the industrial users by the industrial users (rather than the POTW), see Response 6 (last paragraph).

Regarding the proposed local limit for Non-Volatile Suspended Solids, EPA continues to review the Town's proposal. The main reason for the delay was to gather effluent data from the industrial user. That data was collected beginning in May 2024, and EPA would like to thank the Town for those monitoring efforts. EPA has evaluated that data and has been in communication with the industrial user regarding the results. At this time, EPA continues to review the proposed limitation and expects to have a formal response soon.

Comment 157

Operation and Maintenance of the Treatment and Control Facilities Part II(C), # 1(a) (Components #1-3):

Adaptation planning is important and necessary. While the Town agrees in principal with this component, the implementation timeline is unreasonable, arbitrary and capricious. Construction and upgrades to the Merrimack WWTF were completed in compliance with all applicable laws and regulations. EPA cites no authority (nor funding source) for retroactive requirements to upgrade and/or rebuild municipal infrastructure to new standards.

Merrimack believes that the better approach is to require WWTFs to incorporate adaptive measures into applicable future upgrade of critical assets as identified in Component 1. This approach will allow facilities and their rate payers to address adaptation planning on a going forward basis instead of retroactively. Spreading costs out over time is a more appropriate and responsible approach.

Response 157

See Response 2.

Comment 158

Industrial Pretreatment Programs Part II (F)

Local Limit Development, #3:

The Draft Authorization states that:

- a. The Permittee shall develop, continually maintain, and enforce, as necessary, local limits to implement the general and specific prohibitions in 40 CFR § 403.5(c)(1) which prohibit the introduction of any pollutant(s) which cause pass through or interference and the introduction of specific pollutants to the waste treatment system from any source of non-domestic discharge.*

While Merrimack accepts this requirement, it reiterates that, as discussed above, it is required by this Draft Authorization to develop and enforce pretreatment standards to prevent pass through and/or interference. Other terms of this Draft Authorization make clear that EPA recognizes that PFAS compounds pass through POTWs. Because of this requirement the Town believes that the PFAS sampling requirements should be removed from the Draft Authorization until a pretreatment standard is developed for industry that allows Merrimack to enforce PFAS limits. Further, EPA should authorize Merrimack's NVSS local limit.

Response 158

See Response 156.

Comment 159

PFAS Sampling for Industrial Discharges, #6:

Merrimack agrees that these industries may have discharges that include PFAS. However, Merrimack again wants to point out that it is required by this Draft Authorization to develop and enforce local limits to prevent pass through and/or interference of pollutants. EPA's sampling requirements for PFAS in the Draft Authorization constitute an acknowledgement of EPA's belief that PFAS compounds pass through plants at levels that are of concern. This PFAS sampling requirement should be removed until such time as EPA develops a pretreatment standard for PFAS. Requiring POTWs like Merrimack to enforce sampling requirements on industrial users will result in ad hoc and various proposed local limits, which given EPA's review of Merrimack's NVSS local limit, will be years in processing. Instead, EPA should work directly with the generators of PFAS particularly given that 2 of at least 24 PFAS compounds were recently listed under CERCLA. This is also double jeopardy, since Merrimack is also in receipt of the 2026 Draft MSGP which also proposes Quarterly PFAS testing for every sector including Sector T, Treatment Works. As discussed above, these sampling requirement result in unduly excessive costs to Merrimack and will further overload the testing labs.

The other concern Merrimack has with the PFAS requirements is the St. Gobain Site and the significant PFAS contamination spread via their plant air and sewage discharges over almost 50 years. They managed to contaminate most of Merrimack and Litchfield. That PFAS contamination will continue to impact Merrimack and Litchfield for decades to come. In fact, that is why Pennichuck Water laid the larger water supply lines under the Merrimack River to Litchfield a few years back to address PFAS well contamination.

<https://www.pfas.des.nh.gov/pfas-occurrences/saint-gobain-performance-plastics/site-investigation-history>. Addressing this issue through the Draft Authorization improperly shifts the burden associated with PFAS contamination from the generators to passive receivers like Merrimack.

The bullet requiring PFAS sampling by **“Known or Suspected PFAS contaminated sites”** likewise should be addressed by EPA under CERCLA. It is arbitrary and capricious to require Merrimack to investigate contaminated sites via its Pretreatment Program. POTW'S have no jurisdiction over these sites if they are no longer a discharger to the sewer system nor does it make sense to address such discharges via the local limit process instead of through an EPA pretreatment standard. This requirement should be removed.

Likewise the requirement that Merrimack require PFAS sampling by **“Any other known or expected sources of PFAS”** is unreasonably vague. How should Merrimack determine when to require testing? Since PFAS is everywhere just about any site could have PFAS. Consequently, this requirement is overbroad and lacks sufficient specificity for Merrimack to implement it. Without enforcement authority, Merrimack's sole resource is to seek authorization for a local limit which EPA may or may not approve in any reasonable timeline.

Merrimack requests removal of these requirements until EPA establishes a pretreatment standard for PFAS.

Response 159

Regarding local limits, see Response 156.

Regarding PFAS sampling of the industrial users by the industrial users (rather than the POTW), see Response 6 (last paragraph).

Regarding potential duplicative PFAS monitoring from the MSGP, EPA confirms that any monitoring conducted by the Permittee (or industrial users) that is duplicative and satisfies requirements from multiple permit (*e.g.*, this General Permit and the MSGP) may be reported under both permits.

Regarding any existing PFAS contamination, EPA disagrees that this PFAS monitoring requirement “shifts the burden” from generators to passive receivers (POTWs). Rather, EPA finds that POTWs receive wastewater from a variety of sources (many of which contain PFAS) and it is appropriate and necessary to characterize those sources to inform future source reduction efforts.

Regarding “known or suspected contaminated sites,” EPA agrees that this requirement should not apply to these sites that are no longer a discharger to the sewer system. This is why the permit provisions at II.E.4 and II.F.6 indicate that annual monitoring is required for “the following types of industrial *discharges* into the POTW” (emphasis added). In other words, if a contaminated site is not an industrial discharge into the POTW, then it is not subject to this requirement.

Regarding “any other known or expected sources of PFAS,” EPA first reiterates that this category is also limited in scope only to “discharges into the POTW” and should not be applied to any entity that is not actively discharging into the sewer system of the POTW. EPA further clarifies that this category is intentionally vague to allow the Permittee to exercise its discretion in including any other industrial users that may not be captured by the other categories, but the Permittee considers to be likely sources of PFAS. Alternately, the Permittee may, at its discretion, determine that no industrial users fall into this category.

Comment 160

Pretreatment Programs Part II(H)

Special Condition # 5 (Toxicity Violation Procedures- Accelerated WET Test Procedures):

This section of the Draft Authorization states that testing is required when:

the Permittee identifies or is provided notice of a sudden and significant death of large numbers of fish and/or shellfish in the vicinity of the discharge (test for all species identified in permit).

Such requirements are void for vagueness and arbitrary and capricious when there is no parameter for what constitutes “in the vicinity,” what constitutes “sudden and significant” or any parameter for the veracity of the reporting “provided notice.” This standard could be read to require costly testing upon receipt of an anonymous call claiming that several dead fish were found a mile upstream on the bank of the Merrimack River. Merrimack requests removal of this testing requirement.

Likewise, Merrimack requests removal of the requirement to complete WET testing when:

an oily sheen is observed on the surface of the water in the vicinity of the outfall during the monthly visual inspection described in Part II.A.1 (test for all species identified in permit).

Again, this requirement is unduly vague and arbitrary because it does not include clear parameters. If Merrimack is in compliance with its NPDES permit then why would this be necessary? This requirement should apply only if Merrimack was discharging oil based on the effluent of the facility. An inspection of the area around an outfall of the facility should only be required if Merrimack identified an issue in their effluent. Since the river flows on a continuous basis and there are many point source and non-point source discharges into the Merrimack River the only way to confirm that the permittee is the source of the observed sheen is if there is an effluent issue.

Further if there is an oily sheen observed upon the navigable waters of the United States there is already reporting requirements in place for this under the SPCC rules.

<https://www.epa.gov/emergency-response/oil-discharge-reporting-requirements> It is the responsibility of the discharger to notify the National Response Center (NRC). Clearly there only need be a reference to 40 CFR part 110 and 40 CFR part 112. If the NRC, then determines that the permittee’s discharge created impacts to the receiving water then required additional testing would be warranted.

Requiring Merrimack to incur the cost of additional WET testing based on visual observation once per month by permittee or some other random untrained individual who happens to paddle by a facility and then reports an oily sheen is arbitrary and capricious. We request this condition be removed.

Response 160

Regarding the definitions requested in the comment, see Responses 53 (“sudden and significant”) and 225 (“in the vicinity”).

Regarding the concern that any party could “provided notice” of dead fish upstream, see the clarification provided in Response 16.

Regarding an oily sheen, see the changes described in Responses 16 and 198 resulting in removal of the trigger for additional WET testing based on the observation of an oily sheen in the receiving water.

Further, this comment questions why additional WET testing would be necessary based on an observation of an oily sheen in the receiving water if the WWTF is in compliance with all other permit limits. As described in Responses 54 and 225, EPA agrees that additional WET testing should not be required but rather oil & grease testing would be more appropriate. EPA agrees with the implication in the comment that the permit is protective of water quality standards but EPA considers the visual inspection for an oily sheen (described in Part II.A.1 footnote 24) along with a trigger for oil & grease monitoring (added based on Responses 54 and 225) to be necessary to confirm this assumption (especially since the permit does not include an oil & grease limit or monitoring requirement). EPA agrees with the comment that oil & grease could be monitored regularly in the effluent in lieu of this requirement, but finds inclusion of an oily sheen in this visual inspection requirement to be less onerous on the permittees given the need to conduct a visual inspection for other parameters regardless of whether observing for oil & grease is included.

Regarding the comment that the discharger should simply be required to notify the NRC, EPA agrees that such notification is appropriate and applies independently from this NPDES permit. However, EPA notes that without a requirement to inspect the outfall location (or alternately the effluent, as discussed in the paragraph above) with respect to oil & grease, there would be no mechanism in place to identify the issue and trigger such a notification.

Comment 161

Industrial Pretreatment Programs Part II(H), Special Condition # 6 (Benthic Surveys):

As discussed above, the Nation Rivers and Streams Assessment Document 2018-2019 Technical Support Document lays out how meaningful Benthic Surveys are designed. Based on this document these surveys are designed using statistical analysis to determine what water bodies are selected and how the surveys are conducted to insure unbiased results.

SELECTING RIVERS AND STREAMS

*EPA used a statistical sampling approach to select river and stream sites for this assessment, to ensure that **survey results were unbiased**. For more information on statistical surveys, see [What Are Probability Surveys?](#) and [Selecting a Sampling Design](#).*

The target population for the NRSA was the set of rivers and streams in the conterminous U.S. meeting the definition in the box below.

There is a large body of statistical literature dealing with sample survey designs which addresses the challenge of making statements about many by sampling the few (Kish 1965).

The Nation Rivers and Streams Assessment Document 2018-2019 Technical Support Document Page 13, Foot Note 1 states:

The NRSA assessment benchmarks have no legal effect and are not equivalent to individual state water quality standards. NRSA condition categories also may not correspond to the categories states and tribes use when they assess water quality relative to their specific water quality standards under the Clean Water Act. For example, a rating of poor condition under NRSA does not necessarily mean a site is "impaired" as defined by state and tribal water quality standards assessment protocols.

Merrimack believes that the technically based requirements of the how, why, where and when of benthic surveys should be left to the NRSA which is conducted through the EPA. The NRSA has been doing comprehensive benthic surveys since about 2004. These surveys seek to collect **unbiased** information using a statistical approach.

Based on the above footnote from the 2018-2019 Technical Support Document from the NRSA, a site is not necessarily impaired based on the results of a benthic survey. So, the information gleaned from each POTW conducting benthic surveys does not make sense, since it may or may not actually indicate that a site is impaired, even if the survey shows impacts. How will the EPA determine what the cause of the poor result may be? Can the EPA show how this requirement fits into their own cited methodology? Considering again the amount of point and non-point sources discharging into the Merrimack River Basin this will not provide definitive information as to whether a POTW'S discharge is the cause.

For these reasons, and as discussed above, we request that this condition be removed as it has limited value to assess any POTW'S impacts to the Merrimack especially if the facility consistently meets the conditions set forth in its NPDES Permit. <https://www.epa.gov/national-aquatic-resource-surveys/nrsa>

Response 161

Regarding the scope of the benthic survey requirement, see Response 101.

Regarding the NRSA, see Response 155. Further, EPA recognizes that there are many point and non-point sources discharging to most receiving waters which may contribute to impacts on the benthic community. However, EPA notes that the benthic surveys must be focused on benthic impacts immediately downstream of the estimated zone of initial dilution of each discharge (compared to the immediate upstream benthic community). Given that the benthic community immediate upstream of the discharge would also be impacted by all other sources, EPA expects the results to highlight specific impacts from the discharge.

T. Comments from Wright Pierce on behalf of the Town of Merrimack, on January 29, 2025.

Comment 162

General & Standard Conditions

There are 21 wastewater treatment facilities included under this Medium WWTF GP. While there are individual discharge limits and monitoring and sampling requirements, all the

facilities will be covered under the same general and standard permit conditions (not including conditions specific to fresh or marine facilities). It is a concern of the Town that another community may appeal or challenge a condition that could result in modifications to the Town's draft permit.

If in the event another community covered under this Medium WWTF GP appeals a General or Standard Condition that is also applicable to the Town of Merrimack's permit, the Town asks that its permit renewal process be put on hold until the appeal process is finalized.

Response 162

See Response 65.

Comment 163

In Part VII.A.1.a of the Standard Conditions, EPA states that "Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement."

Although similar phrasing was in the standard conditions for recent permits in NH and MA, this language is particularly concerning at this time in rulemaking. This is an exceedingly far-reaching statement that would essentially require facilities to comply with CWA changes, even if those standards are not incorporated into this NH Medium General Permit (MGP). Such language sets up an expectation that facilities will need to anticipate and plan for future (unknown) federal or state water quality standards or permit limits. It also negates the long precedent of NPDES permit writers applying site specific criteria and facility specific compliance plans for POTWs to meet new water quality regulations. This language is especially concerning in the context of EPA's release of Draft Ambient Water Quality Criteria for the Protection of Human Health¹.

We request EPA provides an exception to these conditions in the event that EPA or NHDES set surface water quality standards or sludge/biosolids quality standards for PFAS and other emerging contaminants. The ability to meet water quality or sludge/biosolids standards for PFAS could require considerable planning by the Town, therefore having the opportunity to respond to limits within the NPDES permitting process is essential.

¹ EPA, 2024. Draft National Recommended Ambient Water Quality Criteria for the Protection of Human Health for Perfluorooctanoic Acid, Perfluorooctane Sulfonic Acid, and Perfluorobutane Sulfonic Acid, Federal Register, 2024-30637 (89 FR 105041).

Response 163

See Response 56.

Comment 164

Effluent Limitations and Monitoring Requirements

New Flow Limits

The EPA has carried forward the flow limit from the 2014 permit of 5 MGD. However, this flow limit is now based on a rolling annual average based on a 12 month rolling average. It is not anticipated that this change will impact the facility. There is no recommended comment to EPA for this permit requirement.

Response 164

EPA acknowledges this comment.

Comment 165

New Effluent BOD₅ Limit

The EPA has included a more stringent discharge permit limitation for maximum daily BOD₅ loading. The provided fact sheet guidance indicates that this revised limitation was developed using the reported daily average brewery production between 2019 and 2023. There is an exemption in the Clean Water Act that allows for relaxed standards for treatment facilities which receive more than 10% of their loading from an industrial user (reference 40 CFR § 133.103(b)). The calculation used to develop the revised limitation applies a less stringent treatment standard to the portion of flow attributed to the industrial flow while the standard secondary treatment standards for a POTW are applied to the remaining portion of flow (reference 40 CFR § 133.102). This results in a calculated composite limit that is less stringent than standard secondary treatment standards. Due to lower industrial production from 2019 to 2023 (in comparison with historical averages), the less stringent standard was applied to a smaller portion of the total flow, resulting in a lower calculated total mass loading limit.

While more stringent, the Merrimack facility is not expected to violate the proposed limits based on historical effluent monitoring data.

In addition, a discharge limitation requiring a minimum 85% removal of BOD₅ was carried forward in the draft permit. This is consistent with standard secondary treatment standards and is intended to encourage reduction of I/I and discourage dilution in place of treatment. In Merrimack's case, it is also likely that the 85% removal requirement would supersede the mass-based limit if brewery flows were to be lower than anticipated and a corresponding weaker influent were to be received by the facility.

The use of daily average brewery production over the last five-year period is inappropriate for projection of the upcoming permit period. This data period includes the COVID-19 pandemic, which was a period of decline for the brewing industry and is not representative of conditions anticipated in the next five years as the facility has plans to increase production. It is anticipated that the industrial user will provide comment directly on recent facility operations, disruptions during the data period, and anticipated conditions during the permit cycle. Use of this data period would potentially subject the community to limitations more

stringent than those justified by technology-based effluent limit (TBEL) criteria in perpetuity due to anti-backsliding regulations. The community would have no other option than to introduce a more stringent flow limitation to the industrial user which may have broad damaging economic implications. As written, this limit effectively provides a de facto brewery effluent flow limit. Application of technology based effluent standards should not be subject to flow and load limitations without justification that such limits are necessary to prevent water quality impacts.

We request that EPA consider an extended data period or remove annual outliers in the development of BOD5 TBEL to better represent expected industrial production in the upcoming permit cycle rather than relatively recent trends in industrial loading.

Absent re-evaluation of facility production data, we request that the industrial capacity used in the prior permit of 9,599 barrels per day is maintained. The 85% removal requirement provides an enforcement mechanism for minimum BOD5 removal to secondary treatment standards during periods of lower proportional industrial flow than those assumed in the load limit analysis.

Response 165

See Response 145.

Comment 166

New Effluent TSS Limit and Minimum TSS Removal Requirements

The EPA has included a more stringent discharge permit limitation for both monthly average and maximum daily TSS loading. The fact sheet guidance provided indicates that this revised limitation was developed using the reported daily average brewery production between 2019 and 2023. There is an exemption in the Clean Water Act that allows for relaxed standards for treatment facilities which receive more than 10% of their loading from an industrial user (reference 40 CFR § 133.103(b)). The calculation used to develop the revised limitation applies a less stringent treatment standard to the portion of flow attributed to the industrial flow while the standard secondary treatment standards for a POTW are applied to the remaining portion of flow (reference 40 CFR § 133.102). This results in a calculated composite limit that is less stringent than standard secondary treatment standards. Due to lower industrial production from 2019 to 2023 than historical averages, the less stringent standard was applied to a smaller portion of the total flow, resulting in a lower calculated total mass loading limit.

While more stringent, the Merrimack facility is not expected to violate the proposed limits based on historical effluent monitoring data.

Additionally, a discharge limitation requiring a minimum 85% removal of TSS was carried forward in the draft permit. This is consistent with standard secondary treatment standards and is intended to encourage reduction of I/I and discourage dilution in place of treatment. In Merrimack's case, it is also likely that the 85% removal requirement would supersede the mass-based limit if brewery flows were to be lower than anticipated and a corresponding weaker

influent were to be received by the facility.

While we understand that it is a typical practice, use of daily average production over the last five-year period is inappropriate for projection of the average projection for the upcoming permit period. This data period includes the COVID-19 pandemic, which was a period of decline for the brewing industry and is not necessarily representative of conditions anticipated in the next five years as the facility has plans for expansion. Use of this data period would subject the community and industry to limitations more stringent than those justified by technology-based criteria due to anti-backsliding regulations. As written, this limit effectively provides a de facto brewery flow limit. Application of technology based effluent standards should not be subject to flow limitations without justification that such flow limits are necessary to prevent water quality impacts.

We request that EPA consider an extended data period or remove annual outliers in the development of the TSS TBEL to better represent expected industrial production in the upcoming permit cycle rather than relatively recent trends in industrial loading.

Absent re-evaluation of facility production data, we request that the industrial capacity used in the prior permit of 9,599 barrels per day is maintained. The 85% removal requirement provides an enforcement mechanism for minimum TSS removal to secondary treatment standards during periods of lower proportional industrial flow than those assumed in the load limit analysis.

Response 166

See Response 145.

Comment 167

pH

The EPA has included a more stringent discharge permit limitation for pH, requiring a range of 6.5 – 8.0 s.u. However, there is a provision described in Part II.H.1 of the current individual permit describing that a permittee may request a modified pH range (up to 6.0 to 9.0 s.u.) if the permittee can demonstrate to NHDES- WD that the range should be widened due to naturally occurring conditions in the receiving water or that the receiving water pH is not significantly altered by the Permittee's discharge.

The Merrimack WWTF has previously demonstrated that the conditions for a modified pH range as described in individual permit Part II.H.1 and Part II.K.5 are present and received approval from EPA for a modified pH limit of 6.5 – 9.0 s.u.

In Part II.H.1., EPA indicates that the pH range may be modified if the Permittee satisfies conditions set forth in Part II.K.5. As the Town has previously completed the demonstration study to receive approval from NHDES and has been operating within the range of 6.5 – 8.0 S.U. since 2014, the Town requests that their current permit is updated to reflect the modified pH range.

Response 167

See Response 9.

Comment 168**Copper**

The EPA has included a new discharge permit limitation for average monthly and maximum daily copper concentrations of 2.4 µg/L and 3.1 µg/L.

The median ambient concentration and the maximum effluent concentration from the WET testing data set were used for the copper limit analysis. These values both exceeded the hardness adjusted acute and chronic criteria concentrations for total recoverable copper. This indicates that the stream is considered impaired and has no remaining assimilative capacity for total recoverable copper. Therefore, a limit equal to the acute and chronic criteria is established to ensure that the discharge does not have a reasonable potential to cause or contribute to an excursion of the copper water quality-based limit or cause further degradation. These limits do not provide the 10% reserved assimilative capacity described in Env-Wq 1705.01.

The Town of Merrimack completed additional effluent and ambient sampling in strict adherence with “clean sampling” methods in 2024. This data has been provided by the Town of Merrimack as an attachment. An updated reasonable potential analysis (RPA), including this data would result in a median ambient concentration below the acute and chronic criteria, and a negative reasonable potential for violation of the water quality standard.

The Town of Merrimack contracted an independent party to collect supplemental clean sampling ambient and effluent copper data in the interim period between DMR filing and publishing of the draft permit in 2024. This supplemental data has been provided by the Town as an attachment to their MGP comments and suggests that the copper sampling data obtained during WET testing may be anomalous and/or have been subject to sampling error. While the Town makes every effort to maintain clean sampling techniques, it may be that the sampling protocol was compromised during the DMR submitted WET Testing sampling.

We request that the EPA reevaluate the copper water quality-based limits using the 2024 supplemental data and remove the copper limit from the individual permit.

Response 168

See Response 184.

Comment 169**7Q10 Flow and Dilution Factor**

It is described in the general permit fact sheet that the facility dilution factor is used to determine the required monitoring frequency for several parameters. The EPA has revised the Merrimack facility 7Q10 Flow and Available Dilution in the new individual draft permit. The

7Q10 flow and dilution factor are calculated based on receiving water flow data and facility design flow. In the 2014 permit, a 7Q10 flow of 659.17 cfs was used, which corresponds to a dilution factor of 77. In the draft permit a 7Q10 flow of 742.10 was used which corresponds to a dilution factor of 86.29. A higher dilution factor corresponds to a greater calculated assimilative capacity, higher effluent pollutant concentrations necessary to obtain positive reasonable potential calculation results, and less stringent effluent limitations. Wright Pierce evaluated flow data and confirmed that the 7Q10 flow used by the EPA is appropriate.

Response 169

EPA acknowledges this comment.

Comment 170

Whole Effluent Toxicity (WET) Testing

The EPA has revised the Merrimack facility WET Testing in the new individual draft permit. The required WET Testing limit and frequency was determined based on the dilution factor of the facility. In the 2014 permit, an annual frequency was required. In the draft permit, quarterly testing is required.

In addition to the increased frequency, new WET Testing parameters are required including Total Organic Carbon for effluent; and Temperature, Total Organic Carbon, and Dissolved Organic Carbon for ambient sampling. Note that the EPA has also included guidance within the general permit fact sheet recommending that while not required, facilities may choose to perform additional monitoring of receiving water temperatures, hardness, and DOC for the purpose of improving the accuracy of calculations used for developing criteria such as aluminum.

Other new WET Testing conditions include requirements for accelerated retesting should a toxic result be obtained, and the requirement to perform broad annual pollutant scans for common toxic pollutants so that sublethal effects of those pollutants may be considered in future permitting decisions.

The Town requests that EPA allows permittees to request a reduction in WET testing frequency similar to what was permissible in previous NPDES permits: a written request to EPA, requesting a reduction in the frequency of required toxicity testing, after completion of a minimum of the most recent four successive toxicity tests of effluent, all of which must be valid tests and demonstrate compliance with the permit limits for whole effluent toxicity.

Response 170

See Response 73.

Comment 171

Ambient Phosphorus Monitoring Requirements

The EPA has included a new provision requiring monthly ambient Total Phosphorus monitoring beginning in April of the first even numbered year that occurs at least six months after permit issuance. This monitoring requirement is independent of ambient monitoring

associated with WET testing and is required to be taken immediately upstream of the facility discharge during a period preceded by at least 72 hours with less than 0.1 inches of cumulative rainfall. The Town is required to prepare and submit a sampling plan at least three months prior to the first planned sampling date (i.e. January of the first even year). There is no recommended comment to EPA for this permit requirement.

Response 171

EPA acknowledges this comment.

Comment 172

Nitrogen Monitoring Requirement:

The General Permit Fact Sheet Appendix C describes the reasoning for total nitrogen monitoring due to concerns of dissolved oxygen impairment in Long Island Sound from nitrogen loading. Similar to other NH facilities there is a chance the data is used in future permits to implement a total nitrogen limit. The EPA has included new effluent TKN, Nitrate, Nitrite and Total Nitrogen monitoring and reporting requirements. These require weekly sampling during the warm (April-Oct) season and monthly sampling during the cold (Nov – Mar) season. There is no recommended comment to EPA for this permit requirement.

Response 172

EPA acknowledges this comment.

Comment 173

New Requirements for Adaptation Planning

The NH Medium General Permit Part I.C.1. requires Adaptation Planning to be developed by the permittee and co-permittees. This requirement appears to impose an undue burden on the Town of Merrimack. The Adaptation Plan is comprehensive and includes three primary components. Each has a mandated timeline and requires significant resources. Identifying critical assets, assessing adaptive measures, and preparing an implementation and maintenance schedule within the specified timeframes can be a major demand on permittees and co-permittees with limited staff and budget. The Adaptation Plan does not appear to come with provisions for funding or financial support for permittees. Undertaking vulnerability assessments, adaptive measures assessments, and the subsequent implementation and maintenance schedules would likely require considerable financial investments. Limited federal or state funding will lead many permittees and co-permittees to consider this an unfunded mandate. As more permittees and co-permittees receive new permits, there is a need for a program to fund all components of the Adaptation Plan.

Current federal and state funding requires the permittees and co-permittees to apply for and secure a loan or grant award, as well as obtain borrowing authorization before they can complete eligible portions of the Plan within the mandated timeline. Based on the size and scope of the Adaptation Plan outlined in the permit, the mandated timeline is insufficient. The rigid timelines for each component of the Adaptation Plan, even when Part I.C.1.b. is considered, may not fully address the variations in capacity and complexity of systems managed by permittees and co-permittees. Allowing flexibility would be beneficial and

enable permittees and co- permittees to adjust the process to meet their specific needs, thereby resulting in a better product.

Component 3: Implementation and Maintenance Schedule requires permittees and co-permittees to submit a proposed schedule along with details on funding sources for adaptive measures. This could result in a long- term financial burden, particularly if the identified adaptive measures are expensive or if funding sources are not readily available. If funding is challenging, other asset management priorities may need to be deferred, which could exacerbate existing, known issues.

We suggest the EPA consider adjustments to these requirements to address these concerns to best ensure the Town of Merrimack will be able to fully comply with the permit. We also request NHDES provide a state- supported funding mechanism to partially or fully support efforts associated with meeting the Adaptation Planning requirements. In order to provide an effective Adaptation Plan we request EPA to modify the Adaptation Plan timeframes as follows:

Component 1: 24 months of the effective permit date to 36 months of the effective permit date

Component 2: 36 months of the effective permit date to 12 months following acceptance of Component 1

Component 3: 48 months of the effective permit date to 12 months following acceptance of Component 2.

Response 173

See Response 2.

Comment 174

New PFAS Monitoring Requirements – Frequency and Cost

The NH Medium WWTF General Permit requires that facilities monitor PFAS analytes and adsorbable organic fluorine in influent, effluent, and sludge on a quarterly basis during the permit period. In Part II.E.4, EPA extends PFAS analyte monitoring requirements on an annual basis to industrial users that fall into one of 10 or more user types, with the burden of reporting for each industrial user placed on the facility.

The PFAS monitoring requirements in this permit are excessively burdensome, especially compared to the small and Medium WWTF General Permits issued in Massachusetts and New Hampshire in 2022 and 2023. Facilities in MA and NH that discharge <1 MGD are only required to monitor for six PFAS in influent, effluent and sludge (as opposed to 40 in method 1633), and this monitoring is required half as frequently (2/year). Medium facilities in MA are required to monitor for PFAS analytes in influent, effluent, and sludge using method 1633 on a similar schedule (1/Quarter), but are not required to test for adsorbable organic fluorine.

The new PFAS testing requirements at Merrimack are an added analytical cost of approximately \$10,000 annually. The NH Medium Permit requirements therefore represent the greatest frequency and highest cost burden to date in the region for PFAS testing, with no foreseeable off-ramp for reduced monitoring during the permit period. Considering there are 21 WWTFs that fall under this NH MGP where quarterly sampling of the influent, effluent, and sludge will be required, the state will generate 189 datapoints annually for PFAS Analytes across the state, and another 168 data points annually for AOF in the influent and effluent at these facilities. In addition, industrial users falling into PFAS use categories will also be sampled annually for PFAS Analytes, representing hundreds of more datapoints annually.

Furthermore, Merrimack currently conducts quarterly PFAS sampling of its composted sludge product as part of its NH Sludge Quality Certification. It is unclear if this sampling meets the intent of the proposed sludge sampling or if the Town is required to do additional sampling of its sludge prior to the composting process.

While we understand data collection is needed at WWTFs to understand PFAS sources and fate in our communities, we request that the extent of monitoring be capped at 2 years during the permit period and clarify if composted sludge meets the intent of the sludge testing requirement. A 2-year monitoring cap will generate over 700 PFAS related datapoints in NH medium facilities and hundreds of other datapoints from industrial users in these sewersheds for use by EPA in understanding geographic and temporal fluctuations of PFAS. A 2-year monitoring cap would ease the financial burden, sampling effort, and reporting burden resulting from this requirement.

Response 174

See Response 49.

Comment 175

New PFAS Monitoring Requirements – Analytical Methods

In December 2024, the EPA posted a methodological revision to Method 1633 for Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS, which is now entitled Method 1633, Revision A (1633A). This follows five previous revisions of Method 1633 over a 3.5 year period which included a multi-lab validation. The release of this revised analytical method occurred after the EPA posted the notice of availability of the Draft New Hampshire Medium Wastewater Treatment Facility General Permit². The EPA states in this NH Draft Medium Permit: “Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633.” The EPA further states on its web site³ “While the method [Method 1633A] is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking, the EPA recommends it now for use in individual permits”.

Similarly, Method 1621 for Adsorbable Organic Fluorine is not nationally required for CWA compliance but recommended for use in individual permits. Monitoring should also be on hold until the New Hampshire Environmental Laboratory Accreditation Program (NHELAP) has the opportunity to assess and accredit laboratories for these two methods. Method

1633A and 1621 were both proposed for approval at 40 CFR Part 136.3 in December 2024, but their approval remains pending. The NHDES NHELAP provides primary and secondary accreditation to environmental laboratories located within and outside the state to ensure sufficiently accurate, precise and consistent results of analyses. Although both EPA Method 1633A and 1621 are recommended for use in individual CWA permits, both have undergone significant revision and validation over a short period. Currently, there are no labs accredited for Method 1633A and 1621 through the NHELAP. The process undertaken when shifting a laboratory from one analytical method to another and obtaining NHELAP accreditation is not trivial and could take months or more to complete.

Analytical laboratories serving New Hampshire POTWs already have extended turn-around times for PFAS analyses. The volume of samples to be generated through the PFAS monitoring requirements in this permit would place additional pressure on an already constrained commercial laboratory network. Currently, only 7 labs are accredited through the NHELAP for 1633, all of whom are located outside New Hampshire. These laboratories serve numerous states, and this monitoring requirement would add thousands of samples per year from NH POTW and their industrial users. This will undoubtedly result in: (a) extended hold times, which reduces data quality and reliability, and (b) long turn-around times for data, which impacts data reporting requirements at these facilities.

We request a revision of the PFAS monitoring requirements to place monitoring on hold until (a) Method 1633A and 1621 are promulgated in 40 CFR Part 136, Guidelines for Establishing Test Procedures for the Analysis of Pollutants, and (b) the NHELAP has the opportunity to assess and accredit laboratories for these two EPA methods for state water quality monitoring purposes.

Monitoring requirements for PFAS using Method 1633A and 1621 should not take effect until these methods are promulgated in 40 CFR Part 136, Guidelines for Establishing Test Procedures for the Analysis of Pollutants.

² Federal Register. <https://www.federalregister.gov/documents/2024/11/13/2024-26247/notice-of-availability-of-draft-npdes-new-hampshire-medium-wastewater-treatment-facility-general>

³<https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas>, [CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances \(PFAS\) | US EPA](#)

Response 175

See Response 50.

Comment 176

New Pollutant Scan Monitoring Requirement – Frequency and Cost

The NH Medium WWTF General Permit requires that facilities conduct a Pollutant Scan for analytes listed in Attachment I for effluent and ambient samples on an annual basis during the permit period. It further requires in Part II.I that facilities “Perform three pollutant scans for the pollutants listed in Attachment I, using a representative composite sample once per quarter in the final three full calendar quarters of the 5-year permit term.” Assuming Part II.I refers to effluent samples, this results in a minimum of 7 effluent pollutant scans and 5

ambient pollutant scans (12 total samples) during the 5-year permit cycle. The analytes defined within a pollutant scan are listed in Attachment I, and represent a per sample cost of \$850 to \$1,100 for all analytes depending on the analytical lab used.

The extended pollutant scan requirement defined in this permit is not consistent with pollutant scan requirements for Small and Medium WWTF General Permits issued in Massachusetts and New Hampshire in 2022 and 2023. Facilities in MA and NH that discharge <1 MGD are not required to scan for the pollutants listed in Attachment I. Medium facilities in MA are only required to conduct three pollutant scans on effluent once per quarter in the final three full calendar quarters of the 5-year permit term.

1. What is the purpose of an annual pollutant scan in effluent, especially in situations where no new industrial users are added to the sewershed?
2. Why are WWTFs required to test for pollutants in ambient water, when they are not responsible for background pollutants?

The new pollutant scan requirement represents an added \$12,000 in additional monitoring costs over the permit period. It also represents an additional \$2,000 per year in monitoring beyond what medium-sized facilities in MA are required to collect. As POTWs are not responsible for ambient pollutants, and effluent monitoring will be conducted at the end of the permit cycle, annual pollutant scans in both effluent and ambient are not needed to continue to meet water quality requirements.

Based on these concerns, the Town requests a revision to remove the requirement for the annual pollutant scan in both effluent and ambient water, a modification which would make NH WWTFs consistent with MA WWTFs of similar size from a monitoring standpoint.

Response 176

See Response 52.

Comment 177

Aesthetics – New Monitoring Requirement

In Part II.A, EPA is requiring that facilities conduct a monthly “visual inspection of the receiving water in the vicinity of the outfall, and report any changes that may be caused by the discharge” related to odor, color, turbidity, floating materials, settleable solids, and films/sheens. EPA is also requiring facilities report complaints of taste/odor and remedial actions to address complaints. Reporting for inspections and complaints would occur at the end of each calendar year.

1. What is the purpose of this aesthetic monitoring?
2. How will the information be used by EPA, especially considering it is submitted on an annual basis?
3. What standard methods would facilities use, and how would WWTF staff be consistently trained in order to inspect and describe these parameters?

Through this permit requirement, the EPA has placed an added, qualitative policing requirement on the Town of Merrimack. Merrimack WWTF operators closely monitor effluent water quality using standard methods for the parameters listed in this requirement. However, the Town has no control of receiving water quality, and requiring staff the added responsibility of policing water quality in the vicinity of the discharge would open the Town up to litigation to changes in water quality that are beyond the WWTF's control. In addition, because visual observations are qualitative and EPA cites no standard protocols or methods for this monitoring, inspection quality would vary with time and staff.

Based on these concerns, the Town requests a revision to remove the aesthetic monitoring requirement, which would make the permit requirements consistent with smaller NH facilities and MA facilities of similar size.

Response 177

See Response 54.

Comment 178

Benthic Survey and Details provided in Part II.H.6

EPA proposes that for some facilities, a benthic survey be conducted once per permit period. It states that "During the third calendar quarter (i.e., July through September) that begins at least 12 months after the effective date of the permit, a benthic survey shall be conducted for facilities with a dilution factor below 100 once per permit term to assess impacts from the discharge on aquatic life in the benthic environment." Part II.H.6 broadly defines the sample locations, the number of required samples, the survey taxonomic level, who can perform the survey, and the deadline for submitting a summary report.

The Town requests removal of the benthic survey requirement from the permit based on the following concerns:

The NHDES⁴ and EPA⁵ have each established standard protocols for conducting benthic habitat surveys in freshwater bodies. These protocols define standard field sampling methods (e.g., install a rock basket), establish laboratory protocols (e.g., through specified taxonomic counts per unit area), and provide a template for data analysis and reporting.

1. Why does the benthic survey not reference one of these documents as a standard protocol for field sample collection, laboratory analysis, and report preparation for facilities discharging to freshwater environments, instead leaving the details ambiguous?
2. Will EPA or NHDES draw on standard protocol(s) for conducting benthic surveys in marine environments, in order to bound the effort needed to meet this requirement? For example, see efforts coordinated through NOAA⁶ for coastal environments.

The methodological ambiguity of the benthic survey would result in a wide range of data collection and analysis efforts. The approach taken for the benthic survey would also be specific to the site and the firm chosen to carry out the survey. Because of this ambiguity, a

standard approach should be undertaken at the state or federal level with benthic surveys conducted using the same protocol with site-specific conditions considered from each POTW. For example, refer to the efforts conducted by EPA Office of Wetlands, Oceans and Watersheds as part of the National Rivers and Streams Assessment. Such an approach would greatly reduce the overall cost burden for this requirement, and allow for greater data standardization across facilities, watersheds, and type of aquatic environment.

Data collected from the required benthic survey would not be actionable as findings could not necessarily be attributed to the point source discharger. Therefore, the benthic survey data would be both redundant and less useful than WET testing for measuring point source acute impact and would not provide enough information to evaluate point source chronic impacts. We have estimated that a survey could cost the Town at least \$35,000 when no index of biotic integrity is calculated. Advanced financial planning would be required to cover the cost of this survey. Furthermore, this area of the Merrimack has challenging access and poses a safety hazard for anyone attempting to access it via watercraft.

⁴ NHDES Water Division-Watershed Management Bureau. 2013. NHDES Protocols for Macroinvertebrate Collection, Identification and Enumeration.

⁵ Barbour, M.T., J. Gerritsen, B.D. Snyder, and J.B. Stribling. 1999. Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates and Fish, Second Edition. EPA 841-B-99-002. U.S. Environmental Protection Agency; Office of Water; Washington, D.C.

⁶ NCCOS NOAA National Benthic Inventory. <https://products.coastalscience.noaa.gov/nbi/>

Response 178

See Response 75 and 101.

Comment 179

Chlorine Monitoring (Footnote #11 in Part II.A.1)

EPA has included a footnote associated with usage of chlorine for disinfection:

“The Permittee shall minimize the use of chlorine while maintaining adequate bacterial control....Chlorination and dechlorination systems shall include an alarm system for indicating system interruptions or malfunctions. Any interruption or malfunction of the chlorine dosing system that may have resulted in levels of chlorine that were inadequate for achieving effective disinfection, or interruptions or malfunctions of the dechlorination system that may have resulted in excessive levels of chlorine in the final effluent shall be reported with the monthly DMRs. The report shall include the date and time of the interruption or malfunction, the nature of the problem, and the estimated amount of time that the reduced levels of chlorine or dechlorination chemicals occurred.”

This language is similar to language in the small general permit but lacks clear expectations or metrics for some of the requirements.

We request EPA provide clarification on the requirements indicated in Footnote #11 of Part II.A.1

1. “minimize the use of chlorine:” It is unclear how this would be measured. It is in

the best interests of the Town to minimize chlorine usage due to cost, but some level of safety must be maintained to ensure sufficient bacterial kill which is reliant upon numerous site-specific factors that vary day to day.

2. "...shall include an alarm system". It is unclear what the alarm system entails and if there is an expectation of what specifically is being monitored to trigger an alarm.
3. "levels of chlorine inadequate for achieving effective disinfection". This phrase requires Operator judgement based on numerous parameters including those outside of the Operator's control. Since it is open to interpretation some facilities will be more likely to "self-police" thereby potentially giving a false sense of poor performance compared to other facilities.

Response 179

Regarding minimizing the use of chlorine, EPA agrees with the commenter that minimizing the use of chlorine should allow for some level of safety to ensure sufficient bacterial kill.

Regarding the alarm system, the intention is to prevent any interruptions or malfunctions of the chlorination or dechlorination systems from going unnoticed for long periods of time. The specific alarm system to necessary prevent this (based on facility-specific factors) is up to the discretion of the Permittee.

Regarding levels of treatment inadequate for achieving effective disinfection, EPA highlights that this reporting requirement is only triggered as a result of a "system interruption or malfunction" which EPA does not consider to be subject to operator judgement. Hypothetically, if chlorine levels were too low to achieve adequate disinfection for some other reason than system interruption or malfunction, this reporting requirement would not apply (although this may still result in a violation of the effluent limitations).

Comment 180

New Requirements for the Industrial Pretreatment Program and Industrial Users

In Part II.F of the Draft Permit, the Town of Merrimack understands that EPA has added new requirements in six areas of their Industrial Pretreatment Program. These new requirements describe the Town of Merrimack's Legal Authority and responsibility for enforcing pretreatment standards and local limits (Part II.F.1); specific Implementation Requirements for the Town's pretreatment program (Part II.F.2) including discharge characterization, inspections, monitoring, and enforcement; new requirements for Local Limit Development (Part II.F.3); new Notification Requirements for the addition of new users or pollutants, physical alterations in the facility, or changes to its Pretreatment Program (Part II.F.4); a new Annual Report Requirement (Part II.F.5, see details below); and new Sampling of Specific Industrial Users for PFAS (Part II.F.6, see below).

Annual Report Requirement. In Attachment G, Industrial Pretreatment Program Annual Report, the Town is now required to submit an annual report describing program activities and user status. This report includes requirements for the Town to describe any minor

changes to its Pretreatment Program and the date of latest adoption of local limits. It requires reporting of the Town's Pretreatment Program compliance activities, enforcement activities, and program effectiveness. It also requires the Town to summarize current and new industrial users, violations and violation actions, inspection activities, and PFAS monitoring results.

Sampling of Specific Industrial Users for PFAS. With respect to PFAS monitoring of industrial users, Part II.F.6 of the Draft Permit requires the Town conduct annual sampling of industrial discharges or require industrial users falling into ten defined categories to sample their discharge for PFAS Analytes using method 1633. Data must be reported annually in the March discharge report. This may require the Town to change or update industrial pretreatment permit monitoring requirements and will result in an additional cost to industrial users of at least \$425 per sample. The Town may wish to seek clarity on the type of sampling required (grab vs 24-hour composite) as it is not defined in this requirement.

PFAS Sampling of Industrial Users. The Town of Merrimack has several industrial users in its pretreatment program. While not all these users fall into one of the categories defined for PFAS sampling, it will be necessary for Merrimack to update its industrial user permit fee in order to cover the cost for PFAS analysis. Additionally, because wastewater sampling for PFAS requires specific protocols and training, it will also be necessary for Merrimack to shift staff time and acquire appropriate equipment (e.g., autosamplers) to complete the required sampling. This programmatic aspect is another burdensome requirement of PFAS monitoring. Additionally, the EPA intends to conduct a national study on industrial wastewater discharges of PFAS to POTWs at facilities accepting >10 million gallons per day and a service population $\geq 50,000$ (Merrimack is below these values)⁷. The national study will select 2,000 industrial users from 200-300 POTWs for PFAS sampling. The study is currently going through the information collection request approval process and is expected to begin in 2025.

Since the EPA is moving forward with collecting this information at a national level through a coordinated sampling effort that targets 10 users within each POTW sewer shed, there is no need for individual communities with smaller flows, like Merrimack, to replicate this effort by targeting all industrial users falling into potential PFAS use categories. We request the requirement to sample industrial users for PFAS be removed until EPA has completed its national study, which will guide targeted sampling in smaller communities.

⁷ EPA, 2024. POTW Influent PFAS Study. <https://www.epa.gov/eg/potw-influent-pfas-study#current-status>

Response 180

Regarding cost and industrial users, see Response 6.

Regarding the national study, see Response 12.

Comment 181

New Analytical Costs

Under this new permit, the Town would be required to perform approximately \$22,200 in

additional monitoring per year. These costs are detailed in Table 1 below and exclude staff time to collect samples and report data.

Table 1 Additional monitoring costs that would be required under this permit.

Parameter	Location	Annual Cost
PFAS Analytes	Influent, Effluent, Sludge	\$5,600
Adsorbable Organic Fluorine	Influent, Effluent	\$4,400
Pollutant Scan	Ambient, Effluent	\$2,200
Additional WET Testing and new analytes	Ambient, Effluent	\$10,000
	Total New Analytical	<u>\$12,200</u>

Response 181

See Responses 1 and 6.

U. Comments from Osprey Owl Environmental, LLC, on behalf of the Town of Merrimack, on December 31, 2024.

Comment 182

PFAS and AOF Requirements

In Section II General Permit Requirements there are 25 associated footnotes. Footnote 2. reads, *“In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET).* The tests for PFAS and adsorbable organic fluorine have not, at the time of the issuance of the draft permit, completed the promulgation process. In the rule (URL; [View Rule](#))¹, there is no Final Action on the CWA Methods Update Rule for the Analysis of Contaminants in Effluent regarding PFAS and a method-defined parameter for adsorbable organic fluorine. As stated, ‘Final Action’ is ‘To Be Determined.’ Until promulgation is final, these parameters should not be included in this footnote reference. In December of 2024, the EPA proposed the following: *Method 1633A was proposed for approval at 40 CFR Part 136.3 in December 2024 (docket number EPA-HQ-OW-2024-0328).* However, *Method 1633A is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking.* As this step in the approval process has yet to be completed, the request for PFAS and AOF sampling and analysis does not comport with the conditions of Footnote 2. These requirements should be removed from the permit, or the permit delayed until such time the methods are approved and included in 40 CFR Part 136.

Footnotes 14 and 15 would be affected by the above comment. EPA also states that “Until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633.” Note the approval that is being sought by the EPA is 1633A. The language is also similar in footnote 15, “Until there is an analytical method approved in 40 CFR Part 136 for Adsorbable Organic Fluorine, monitoring shall be conducted using Method 1621.” Adsorbable Organic Fluorine is a speculative test for finding sources of PFAS. There are noted problems with the results and interferences and several non-PFAS compounds can also be measured in the 1621 analysis providing higher non-PFAS concentrations (see section 4.0 of this EPA link [Method 1621 Determination of Adsorbable Organic Fluorine \(AOF\) in Aqueous Matrices by Combustion Ion Chromatography \(CIC\)](#)).²

The EPA further states the following, “The EPA’s Office of Water has published Method 1621, “Determination of Adsorbable Organic Fluorine (AOF) in Aqueous Matrices by Combustion Ion Chromatography (CIC),” a method to measure the aggregate concentration of organofluorines (molecules with a carbon-fluorine bond) in wastewater. The most common sources of organofluorines are PFAS and non-PFAS fluorinated compounds such as pesticides and pharmaceuticals.

AOF is a method-defined parameter, meaning that the results of the measurement are dependent on the manner in which the measurement is made. The method does not quantify all of the organofluorine it captures with the same accuracy and has some known interferences that are discussed in the first section of the method (see Method 1621 link above). The method tells the user that organofluorines are present but cannot identify which specific organofluorines are present. The strength of the method is that it can broadly screen for thousands of known PFAS compounds at the **part per billion level** in aqueous (water) samples.

The Office of Water led a multi-laboratory validation study of Method 1621. The Office of Water used the results of the multi-laboratory validation study to finalize the method and develop formal performance criteria. The Office of Water encourages interested parties to review and use the method, with the understanding that it may undergo revision during a rulemaking process. Method 1621 is not nationally required for CWA compliance monitoring until the EPA has promulgated it through rulemaking. [CWA Analytical Methods for Per- and Polyfluorinated Alkyl Substances \(PFAS\) | US EPA](#)³

Note the method measures in the microgram per liter range (ug/l) and the request by the EPA in footnote 15 is for measurement in nanograms per liter (ng/l). This test is not compatible with the EPA’s request to measure down to the parts per trillion.

Response 182

See Response 11.

Comment 183

The current EPA’s position nationally was only to have wastewater treatment plants 10 MGD or larger to begin testing for PFAS and Adsorbable Organic Fluorine. EPA has a heavily populated website on the ‘POTW Influent PFAS Study’ ([POTW Influent PFAS Study | US EPA](#)). There was an initial Register notice posted on March 26, 2024, with comments to be received by May 28,

2024 ([Federal Register :: Proposed Information Collection Request; Comment Request; POTW Influent PFAS Study Data Collection](#)). In this notice, questionnaires were to be sent to 400 of the largest WWTPs out of the 12,000 (2.7% of the total WWTPs) in the US. Mandatory responses were required and subsets of 200 – 300 plants would be asked to conduct specific sampling in two phases. The Phase One expectation cited, *“Phase 1 will require each selected POTW to collect and analyze one-time grab samples of industrial user effluent, domestic wastewater influent, POTW influent, and POTW effluent for forty specific PFAS and adsorbable organic fluorine (AOF). For each POTW selected, the EPA intends to specify no more than ten industrial users for which the POTW must collect and analyze effluent samples. The total number of industrial users sampled as part of the sampling program is not expected to exceed 2,000 facilities. Phase 2 will require selected POTWs to collect and analyze one-time grab samples of sewage sludge for forty specific PFAS and ancillary parameters.”* At 200 subset plants with 2,000 industrial facilities equates to 2,200 tests. If it is 300 facilities it is 2,300 tests. In the Phase I Study the EPA calls for a one-time grab of the industrial user’s effluent (2,000 tests) and a one-time grab of the plant’s influent and effluent (400 to 600) tests. At most there will be 2,600 tests run in phase I. EPA estimates that Phase I will get underway in 2025. The Office of Management and Budget did a cost analysis for the above study.⁴ The treatment plants would need to dedicate 25,640 hours for 5.5 million dollars. That is only administrative costs and sampling field work. That amounts to \$2,115.38 for each of the 2,600 tests run in phase 1. The current cost for one PFAS sample is approximately \$500.00. The cost for AOF is approximately \$440.00. The total cost per test is \$3,055.38. At 22 required tests annually (12 for the plant, inf, eff, sludge, and anticipate 10 industries) for each MGP the cost to each MGP WWTP would be \$67,218.36 per year.

⁴ [2799ss01 - OMB](#)

The EPA further outlines in the comments that the participants will be divided into four categories. *“Phase I sampling will be staggered in order to distribute demand for environmental laboratories completing sample analysis. The EPA will divide the POTWs selected for wastewater sampling into four groups that contain 50-75 POTWs located across the nation. Groups will sample sequentially (i.e., Group 1 will sample and submit results to the EPA, then Group 2 will sample and submit results to the EPA, etc.) over a 16-month period.”* That would be around 700 PFAS/AOF samples per quarter nationwide. The EPA is expecting the 21 medium plants to analyze influent, effluent, and sludge once per quarter along with one sample from potential industries (estimate 10 per facility from the list in Item 4 on page 17 of 28 in the Medium General Permit). That would be 462 PFAS samples from small plants. This is an extreme overreach by the regulatory agency and does not comport with the Register Notice of the Phase I and Phase II PFAS/AOF nationwide study. It will also swamp the analytical laboratories as noted by EPA.

A second Federal Register Notice was issued on October 10, 2024, with comments due by November 12, 2024, ([Federal Register :: Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Publicly Owned Treatment Works \(POTW\) Influent Per- and Polyfluoroalkyl Substances \(PFAS\) Study and National Sewage Sludge Survey \(NSSS\) \(New\)](#)). More specifics were included with this

posting including leaving the POTW size at >10 MGD, the EPA was still looking at 400 facilities participating and now the population size of > /= 50,000 service population was added. Also, note that the study was to include only 10 industrial facilities from each of the participating WWTPs. Merrimack has approximately 28,000 residents and certainly, none of the 21 facilities that will participate in this Medium General Permit have a population of 50,000 service customers.

EPA cites this study in the above roadmap expectation in their November 2024 Annual PFAS update release titled, *'EPA's PFAS Strategic Roadmap': Three Years of Progress*,⁵ *"The EPA is also moving forward with a nationwide study of PFAS influent and sewage sludge at wastewater treatment facilities and is expected to publish updates on its information collection request in the near future before beginning a two-year study effort."* It is obvious this is step one and that the information gathered from the >10 MGD study may set parameters for Medium and Small General Permit WWTPs in a future NPDES issuance.

⁵ [epas-pfas-strategic-roadmap-2024_508.pdf](#)

Merrimack includes the following information from the EPA's PFAS Sampling Plan;

Sampling⁶

The EPA will use the information and data collected in the questionnaire to select 2,000 industrial users to be sampled by 200 to 300 POTWs. Each POTW selected for sampling will be required to collect the following:

- 10 samples on average from different industrial users (IUs) selected by the EPA
- A domestic sample
- POTW influent and effluent samples
- QC samples

The EPA will provide a sampling plan with detailed information on what is required of selected POTWs and how to complete the sampling. As part of sampling, POTWs will be responsible for the following:

- obtaining sampling supplies
- contracting labs for analysis
- collecting samples specified by the EPA
- notifying EPA when samples are submitted for analysis
- reviewing and compiling the sample results in the specified format

⁶ EPA's PFAS Study Design Section on this website - [POTW Influent PFAS Study | US EPA](#)

In an effort to both improve lab capacity and reduce costs associated with analyzing wastewater samples from 200 to 300 POTWs simultaneously using [EPA Methods 1633 and 1621](#), the EPA will stagger sampling and analysis.

Selected POTWs for sampling and analysis will be broken up into 4 groups, with each group containing a geographical spread of POTWs from across the country. All samples will be grab samples. Samples will be analyzed using EPA Method 1633, which measures 40 PFAS analytes, and EPA Method 1621, which measures adsorbable organic fluorine (AOF).

EPA intends to conduct the study (which has yet to begin as final Phase II comments were recently submitted by the November 12, 2024 deadline and the Annual PFAS Report (indicates the finalization of the study is at least 2 and ½ years out) and the target WWTP parameters are > 10 MGD with a service population of 50,000 or greater. The study only includes large WWTPs with one influent and effluent test and not the quarterly PFAS/AOF requirements as outlined in this draft MGP. The Town of Merrimack respectfully requests that all PFAS and Adsorbable Organic Fluorine sampling and reporting requirements be removed from the final issued MGP590013 NPDES Permit.

Response 183

See Response 12.

Comment 184

Total Recoverable Copper

The Effluent Limitations Table has a copper limit of 2.4 ug/l for an average monthly and 3.1 ug/l for a maximum daily limit. The EPA used the following data.

Date	EPA Ambient Copper ug/l	Plant Eff Copper ug/l	
9/30/2019	2.9	4.8	
9/20/2020	6.2 median	14.3	
9/20/2021	14.4	11.3	
9/20/2022	11.3	10.6	
9/20/2023	2.8	11.1	
<10 = Max	14.4	13.7	95th %ile

The EPA used the median value of 6.2 ug/l. The 95th percentile of the effluent values is 13.7. The EPA used the maximum value of 14.3 ug/l in the RPC. The resultant acute and chronic downstream concentration was calculated to be 6.3 ug/l. The acute criteria copper value with a 10% safety factor is 2.8 ug/l. The chronic criteria copper value with a 10% safety factor is 2.1 ug/l. The non-clean data produces higher concentrations than WQ criteria and a 2.4 ug/l monthly average and a 3.1 ug/l maximum daily value were included in the permit. Note in Attachment A (Freshwater Acute Toxicity Test) and Attachment B (Freshwater Chronic Toxicity Test) protocols require an MDL for copper of 3.0 ug/l. Essentially this permit requires BDL or ND values for every effluent composite test for copper for the WWTP to comply with their NPDES. An impossible requirement even for 'Clean Composite Sampling.'

Composite 'Clean Sampling' includes a clean bag insert in the composite carboy to avoid the addition of sloughings and organic matter that clings to the side of the carboy from

previous composite samples. It requires a new or ultra-clean sampling hose to take samples from the effluent channel and a new or very clean thick pump tubing to pump the sample into the bagged carboy. It also requires a metal-free strainer to avoid particulate pieces of stainless steel being drawn up into the sampling tube from the strainer rubbing against the concrete tankage.



Figure 1 Bag insert



Figure 2 Dirty vs Clean hose



Figure 3 Clean pump tubing



Figure 4 Non-metallic strainer

The Pennichuck Water Treatment Plant provides potable water to the Town of Merrimack. The 2023 CCR⁷ (above) lists the 90th percentile of copper concentration in the drinking water they provide at 188 ug/l. To remove copper to the 3 ug/l limit would take a 98.4% consistent removal operation.

⁷ [CCR-A0.pdf](#)

2023 Results

	Dated	90th Percentile	Action Level	MCLG	# of Sites Sampled	# Sites Above Action Level	Violation Yes/No	Typical Source of Contaminant
Lead (ppb)	8/17/2023	0	15	0	63	0	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	8/17/2023	0.188	1.3	1.3	63	0	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

The U.S. National Institute of Health's, National Library of Medicine has a well-researched article⁸ on the treatment and removal of copper from wastewater and several other mediums. There is a description of each removal technology, the expected percentage removal from most methods is under 95%, and at the end a breakdown of the advantages, disadvantages, application scenarios, and costs. A copper limit this stringent would require a recalculation of Merrimack's WWTP's local limits and very stringent limitations on industrial discharge. This would require an IDP for the Pennichuck Water Treatment Permit and create undue hardships for the water facility, wastewater facility, and ratepayers all due to poor sampling. Cause and Effect should be highly considered with any limitation

below detectable limitations in any permit.

⁸ [Removal of Copper Ions from Wastewater: A Review - PMC](#)

Fortunately, this spring and summer Merrimack performed 'Clean Sampling' on thirteen ambient and 12 effluent composite samples. The results from the 'Clean Sampling' project yielded the following values in the Merrimack River.

DATE	Ambient Cu ug/l	Plant Eff Cu ug/l	Monthly Average	
5/28/2024	0	3.5		
5/29/2024	0	4.4		
5/30/2024	1.3	3.6		
5/31/2024	0	4.5	4.00	
6/11/2024	0	4.8		
6/12/2024	1.4	4.2	4.15	
6/13/2024	1.4	3.8		
6/14/2024	1.1	3.8		
7/16/2024	0			
7/18/2024	0	5	5	
8/21/2024	0	16	16	
9/11/2024	0	9.2	9.2	
10/11/2024	0	9	9	
Median	0	12.26	14.3	95th %ile

The ambient upstream copper value was usually less than 1 ug/l with the two highest samples measuring 1.4 ug/l. The median value for all downstream data points was 0 ug/l. The four effluent composite samples in May averaged a data point of 4 ug/l. The four effluent composite samples in June averaged a data point of 4.15 ug/l. The other data points are all single concentrations as measured on the effluent composite sample.

Combining the EPA data set with the 'Clean Sampling' values generates the following values,

Ambient River Values in ug/l		Plant Effluent Values in ug/l	
0.325	Average May	4	Average May 2024
0.975	Average June	4.15	Average June 2024
0	Average July	5	Average July 2024
0	August One Data Point	16	August one Data Point
0	September One Data Point	9.2	September one Data Point
0	October One Data Point	9	October one Data Point
2.9	EPA 2019	4.8	EPA 2019
6.2	EPA 2020	14.3	EPA 2020
14.4	EPA 2021	11.3	EPA 2021
11.3	EPA 2022	10.6	EPA 2022
2.8	EPA 2023	11.1	EPA 2023
0.975	Median Value	15.15	95th percentile

According to Appendix B and the EPA Fact Sheet, the 7Q10 of the draft MGP in the Merrimack River is 474.4 mgd. The WWTP design flow is 5.0 mgd. The formula for calculating reasonable potential is

$$Cd = \frac{(Cs \times Qs) + (Ce \times Qe)}{Qd}$$

15.15 ug/l Ce = Effluent Concentration **95th Percentile**
 5.0 Qe = Avg **Design Q** for Chronic: Peak Q Acute
 0.975 ug/l Cs = **Median Concentration** in Merrimack River **upstream**
 474.4 Qs = **7Q10** Stream flow Fact Sheet RPC
 1.12 ug/l Cd = downstream concentration
 479.4 Qd = **Downstream flow** (Qs + Qe)

The calculation is:

$$(0.975 \times 474.4) + (15.15 \times 5.0) / 479.4 = 462.54 + 75.75 / 479.4 = 538.29 / 479.4 =$$

1.12 ug/l is final downstream concentration with Merrimack's effluent discharge.

This is 40% of the chronic value and 32% of the acute value. There is no 'Reasonable Potential' for violation of the copper WQ standard. Merrimack requests that the copper limitation be removed from the permit.

Response 184

EPA appreciates the additional data provided in this comment. Although the comment does not provide information necessary to invalidate previous ambient data, it does provide additional ambient data from 2024. Including this more recent ambient data (along with the previous data) resulted in an updated ambient median value of 0.975 µg/L. All else being equal, the resulting downstream concentration is 1.1 µg/L, which is well below 2.8 and 2.1 µg/L (*i.e.*, the acute and chronic criteria times 0.9 to reserve 10% assimilative capacity). Therefore, the updated calculation does not show reasonable potential for copper from Merrimack's discharge and the limits have been removed from the Final General Permit.

Comment 185

In footnote 24, Merrimack's outfall is about 300 feet downstream of the chlorine contact tanks and close to the middle of the river. It would be difficult to get any type of watercraft out to that area during flows above 15,000 cfs and impossible during the spring thaws of March and April. An increasing flow of the river would quickly carry any pollution downstream before it is ever visible at the outfall location. The Pennichuck Water Works had to add a river crossing to the force main that crosses the Merrimack River approximately 1,000 feet above the Merrimack WWTPs outfall. The line is buried beneath the river bed. The line has random blow-offs and large bubbles can be seen breaking the water surface during these periods (observed by Ian Anderson and Rick Cantu during a 'Clean Sampling' event this past summer). There is certainly legacy pollution throughout

this area of the Merrimack River due to the Industrial development of the 20th century. Merrimack believes an inspection of the chlorine contact tanks and secondary launders during plant rounds would be a better way to determine errant outfall pollution than a once-per-month inspection of the river along the outfall. Merrimack requests that the EPA consider removing this condition from the final NPDES MGP.

Response 185

Regarding difficulty in accessing the outfall location via watercraft, see Response 54.

Regarding the potential for upstream sources to impact the visual inspection, EPA clarifies that footnote 24 only requires reporting of changes that “may be caused by the discharge.” See Response 154.

Regarding the suggestion that inspections should be at the chlorine contact tanks and secondary clarifiers, EPA agrees that the Permittee should include such inspections in their normal practice but it is not included in this receiving water inspection requirement.

Comment 186

Adaptation Planning

Section C, 1., Adaptation Planning covers four pages of the draft permit with 12 footnotes. The Town of Merrimack can agree to section a. Adaptation Plan, most of Component 1. and many of the footnotes with minor modifications. Footnote six being, “Baseline conditions” refers to the 100-year flood based on historical records.

Footnotes 10 onward and Component Two and Component Three are premature as there are several models, monitoring stations, and planning that need to be completed by the USGS and the NHDES Dam Control Bureau before implementation of the adaptation plans produce reliable and cost-effective impacts to flood control.

Executive Order 14008 ([Federal Register :: Tackling the Climate Crisis at Home and Abroad](#)) published January 27, 2021, outlines the path the government is to take in the execution of the conditions of the Executive Order. Sec 102(e) is specific regarding the process to include input from various agencies and domestic stakeholders. In reading through the order there are several references to the Government Agencies coordinating and receiving input from local governments, communities, and stakeholders. There was no input from the MGP WWTPs on all these mandated projects before the receipt of the draft NPDES permit. This comment period is the only opportunity Merrimack has for input on this draft permit. Once the permit is finalized, the Town is mandated to uphold all the conditions and the NPDES Permit becomes law without any further input as required by Executive Order 14008. Before any Medium General Permittee can go forward, a look back at the historic flooding in NH is required.

There is a document produced by the FEMA in July of 2008⁹ The document reviews the key

findings of the 2006 Mother's Day Flood which happened only 11 months after the catastrophic flooding of April 2007. The main causes of each flooding event were different. The May 2006 event was a result of 6" to 14" of rainfall over two days. The April 2007 event had 4" to 8" of rainfall, but this event was exacerbated by rapid snow melt. These two events are compared to floods of 1936, 1938, 1960, 1987, 1991, and 1998. Table 2-7 of the report lists the historic severe flooding events. Listed below are events that happened before the Clean Water Act of 1972 and the historic nationwide building of wastewater treatment plants from the early 1970s through the mid-1980s. The first listed was in December of 1740. Next was October 23, 1785, then March 24- 30, 1826, followed by April, 21-24, 1852, then 10 years later flood of April 19-22, 1862 (due strictly to snow melt), then a subsequent flood of October 3-5, 1869 (6" to 12" of rain), a November 3, 1927 flood, March 11-21, 1936 (first due to rain followed by subsequent contribution by both snowmelt and rain), the September 21, 1938 hurricane, the June 1943 flooding in the lower Merrimack, and then again in June of 1944, November 1950, March 27th 1953, August of 1955, October 25, 1959, December 1959, April 1960, April 1969, February of 1972 and finally June of 1972 before the implementation of the Clean Water Act. That's 17 historic flooding events before a spade was put into the ground for the WWTPs funded 95% (75% federal and 20% state with a 5% obligation by the municipality). There were 16 additional flooding events after the June 1972 event and the implementation of the CWA. This demonstrates that severe flooding events are nothing new and very similar to events after the CWA in regard to intensity, duration, causality, and destructiveness.

With all this historical knowledge and follow-up studies with reports on how to abate the destructiveness of these types of storms, all of the 21 MGP plants were still built in the lowest- lying areas to take advantage of gravity flow for the community being served. The FEMA study states, *"Flood events that occurred in the last century could be more damaging if they occurred today. Development, often in the floodplain, has grown. Development reduces the ability of flood waters to pass unimpeded and increases flow rates. South central and southeastern New Hampshire experienced two very large floods in 2006 and 2007. Depending on location, they ranged from 10-year flood events to over 500-year flood events."*

⁹ [Microsoft Word - New Hampshire Flooding Analysis 7-28 for FINAL review BM.doc](#)

There was a forewarning of these types of disasters drafted by the Department of the Interior (595 pages) titled, '**Hurricane Floods of September 1938**'¹⁰ that was published by the USGS in 1940. This was 30 years before the CWA and 94 years before today's mandate for Adaptation Planning. In the General Features of the Storm section it states, *"it appears that the magnitude of the floods may have been determined in part by meteorological conditions not intimately associated with the tropical disturbances."* The narrative goes on to lay out the interplay of climate conditions that point to many causes. The Hurricane was one factor, a low-pressure system over Nebraska, a continental disturbance centered over northern Maine, with a high- pressure over Quebec and a low-pressure area that extended from North Carolina to Central New England. This interplay of meteorological systems held the rainfall in place longer than usual. We've witnessed similar events with the Perfect

Storm of October 1991. These types of events, without the hurricanes, happen in New Hampshire, Maine, and Vermont at about the same frequency as the historical string of storms from 1927 through the inception of the CWA in 1972.

The actions laid out in the 1940 USGS report are what have been ignored post-1938 Hurricane. There is a description of how the ground's adsorptive capacity was different from the 1938 storm and a previous storm of 1927. The adsorptive capacity was capable of holding anywhere from 1" to 4" of rainfall reducing the destructive capacity of the event (if and when the adsorptive capacity was available). Much of the area from Connecticut to Central Massachusetts exceeded 17" of precipitation over four days. A 4" adsorptive capacity would have reduced the impact to 13" of rain. Table 17 on page 417 illustrates the adsorptive capacity of the 1927 storm, and Table 18 the adsorptive capacity of the 1932 storm. This would be important information to have as part of a real-time controls program similar to CSO real-time controls, to use like SCADA when storms approach and high-flow plans are activated at WWTPs.

¹⁰ [report.pdf](#)

Page 36 begins the narrative of the flooding in the Merrimack River Basin. Note the Contoocook River had flooding likely exceeding the 500-year flood levels where dams were breached, bridges destroyed and homes swept away. This fact demonstrates that there will continue to be pockets where the precipitation is heaviest and exceeds Adaptation Planning preparation. On page 58 an insightful narrative was given, *"Lessons have been learned, and social and economic problems and problems of control and protection have arisen as a result of the disaster. The Lessons must not soon be forgotten, and the problems ought to be studied and analyzed and solutions diligently sought. Steps have already been taken towards these ends, and it seems evident that the extraordinary experiences of this disaster will provide the basis for sound measures of forewarning, control, and protections that will operate to reduce substantially the attendant social and economic crippling should any similar catastrophe strike in the future."*

Several antecedent conditions are laid out in the report. Snowpack and depth, anticipated temperatures and rate of snow melt, possible ice dams, the capacity of the soil to retain rainfall, the extent of vegetative cover, conditions where backwater exacerbated flooding, dams and controls of river volume and velocity, and increasing Curve Numbers (CN) with increasing industrialization and population growth. The most effective flood control is storage. Pages 412 and 413 outline how effective storage is in combating flooding.

Mentioned in the Merrimack River Basin storage narrative are Lake Winnepesaukee, Newfound, Squam, and Winnisquam. As an example, the report says Lake Winnepesaukee has seven billion cubic feet (52 billion gallons of storage) when drawn down 44 inches below full regulation level. A report was issued by the USACAE¹¹ that demonstrates the effectiveness of dam control.

The 1940 USGS outlines the effectiveness of dam control the USACAE report demonstrates

the effectiveness of dam control. The percent reduction went from a low of 19% to a high of 64% at five stations that either contributed to the flow in the Merrimack River or the Merrimack River.

¹¹ [30 April 2003](#)

Specific river stage information showing the effectiveness of Corps reservoirs is presented below.

Effectiveness of Corps of Engineers Dams						
Location	D.A. (sq. mi.)	Flood Flow (cfs)	Obs. Peak (cfs)	Natural Peak (cfs)	Reduction %	ft
Merrimack River Basin						
Merrimack R @ Concord, NH	2,385	30,200	35,400	66,300	47	7.7
Merrimack R @ Manchester, NH	3,092	46,060	74,700	106,200	30	6.3
Merrimack R @ Lowell, MA	4,635	48,000	105,750	130,950	19	2.3
Piscataquog R @ Goffstown, NH	202	3,460	10,000	14,250	30	1.8
Contoocook R @ River Hill, NH	760	11,700	10,250	28,550	64	6.0
Naugatuck River Basin						
Naugatuck R @ Beacon Falls, CT	259	8,725	7,340	16,745	56	3.8

Armoring a facility as is expected in the Adaptation planning can create additional life-threatening problems. During the Mother's Day floods and the flooding of 2007, the Merrimack River in 2006 was about 2" below the final plant construction benchmark which is approximately 121" above normal river elevation. In 2007 the interceptor that runs through Watson Park across from Buckley's Bakery got washed out over by Longa's pit so the WWTP was taking in water from there. The plant set up a temporary pump station at a manhole on DW Highway to pump up past the Bridge over the Souhegan River near the Central Fire Station to a gravity sewer. That line was repaired and reinforced after that incident. The DPW had to also repair an old train trestle so the vacuum truck could get out to this location. The siphon across from Souhegan Pump Station had the hatch collapse and we took in the river from there (creating a vortex action that could have easily pulled in unaware plant personnel). That hatch was replaced with a reinforced one. None of the pumping stations stopped functioning themselves but there were other offsite impacts similar to those already mentioned. This hatch malfunction happened in Nashua, NH in October 2016¹² where a teenage boy fell into a storm sewer due to a heavy rainfall event. Three to four feet of flood waters over an open manhole can create a vortex that may pull a victim in who is several feet away from the opening. Canoes, Kodiaks-powered rescue rafts, and smaller bass boats would be needed to transport employees to and from the flooded

wastewater plant property. With a raging Merrimack River above 75,000 cfs now covering the property boundaries, it would be easy for the velocity of the floodwaters to draw the watercraft into the current causing occupants to drown.

¹² [Concord Monitor - A Nashua teen dies in a bizarre manner. So, going forward, what does that mean for keeping drainage systems safe?](#)

With the information contained in the 1940 USGS report, it appears the poorest location for wastewater plants was at river levels. This put wastewater plants at ground zero for community flooding. As you can see from the below elevation map of the Merrimack WWTP location there were other higher elevation choices (grey rectangle) to locate the plant on higher ground out of the 500-year flood area. There are several locations today that are 25 or more feet above the current plant location. Note the WWTP is on higher ground and the surrounding area is lower creating a WWTP island in a 500-year flood.

The concern then (likely through the Value Engineering [VE] process) was the cost associated with pumping community wastewater up from the lower occupied elevations to an elevated WWTP and allowing the wastewater to flow back to the river via gravity. As the Federal Government and State were paying a lion's share of the cost (95%) the goal was to stretch funding the furthest to build as many WWTPs the recommendations from the USGS 1940 report were not even considered. Now, the Adaptation Plan will likely call for two or three significantly large pumps to pump the flood-contaminated wastewater to the Merrimack River that could have been incorporated into an initial high-ground WWTP location.

Section 211(d) of Executive Order 14008¹³ order is a guide for how the implementation of the Executive Order proceeds. *"To assist agencies and State, local, and Tribal territorial governments communities, and territorial governments communities and businesses in preparing for and adapting to the impacts of climate change..., shall provide to the Task Force a report on the ways to expand and improve climate forecast capabilities and information products for the public. Shall assess and provide to the Task Force a report on the potential development of a consolidated Federal geographic mapping service that will assist Federal, State and local, and Tribal governments in climate planning and resilience activities."* The EPA points out in their Draft Strategic Plan incorporating the directives of the Executive Orders that the department still needs to improve the model of climate change impacts including how risks and economic impacts can be reduced under mitigation and adaption scenarios and how those impacts will disproportionately affect overburdened and underserved communities. From the directives cited it appears the Adaptation Planning contained in the draft NPDES is quite premature.

¹³ [2021-02177.pdf](#)

None of this EO14008 directive is outlined in Section C or the pages of the Fact Sheet of this NPDES Draft Permit. The EPA is expecting the Town of Merrimack to master these aspects of adaption scenarios when the EPA admits there is still a need for improvement in their

understanding of climate change impacts.

The Town of Merrimack believes the use of the CREAT model to determine the vulnerable areas is a good starting point. The USGS and State should begin to coordinate locations for ground moisture monitors in the NH counties and historical flood zone land masses to determine adsorptive capacity. The dam stage operating plans should be included in a model that couples snowpack, ground moisture, anticipated rainfall, rainfall intensity, rainfall duration, and localized area anomalies anticipated from any storm track. CN numbers should be updated and modeled to illustrate the impacts of continued community growth on soil adsorption and runoff intensity. This in itself will inform communities of the additional flooding impacts created when future CN curves steadily increase in flood-prone areas. This could all be rolled into a real-time climate impact model for severe storms and calibrated over a couple of years. This would satisfy footnote 10, *“They may include but are not limited to: building or modifying infrastructure, utilization of models (including but not limited to: flood, sea-level rise and storm surge, sewer/collection system, system performance), monitoring and inspecting (including but not limited to: flood control, infrastructure, treatment) and repair/retrofit.”*

Then each community with a wastewater plant should be trained in the interpretation of the real-time model and how it impacts their high-flow management plans, neighborhood evacuation plans, and future growth plans. This would take 10 or more years of federal and state coordination but would be the best tool developable for an overall state Adaptation Plan rather than each plant winging it to the tune of millions of dollars of upgrades that will likely fail in the largest of storms.

Section 402 of the Clean Water Act (b)(1)(B) requires the issuance of permits that *“are for fixed terms not exceeding five years;”* This requirement is outlined in the State designated programs also as indicated in Section 402 (a)(1)(B)(3). *“EPA shall be subject to the same terms, conditions, and requirements as apply to a State permit program and permits issued thereunder under subsection (b) of this section.”* The administrative attempt in this draft permit is to set conditions that go well beyond the five-year permit period. EPA acknowledges this get-around proposal in Footnote 7, *“These shall include both short-term (10-25 years forward-looking) and long-term (25-70 years forward-looking) relative to the baseline conditions and must include projections of flooding due to major storm and flood events using federal, state and local data, where available; b) Freeboard Value and 500-year floodplain Approach:”*. This is for two, five, and 16 permit cycles of mandated tasks placed in this new, MGP five-year period.

Due to the above reasons, the Town of Merrimack respectfully requests that footnotes 7 through 12 be removed and footnote 9 become footnote 7 (Merrimack agrees that the CREAT model will shed some light on how vulnerable the plant is) while entirely removing Components Item a. of footnote seven is reasonable. Item b. onward should be removed as it moves into the multi-year permit cycles. Also, Section Three, Annual Reporting, G., Adaption Planning Progress Reporting should be modified to include only

reporting on the CREAT modeling and the findings from that model.

Response 186

See Response 2.

Comment 187

Section F, Industrial Pretreatment Programs

The industrial and commercial entities mentioned in Section E.4, for annual PFAS sampling should be removed from this MGP for the reasons indicated above. Merrimack does not meet any of the criteria of the EPA's > 10 MGD Phase I PFAS Study.

Response 187

See Response 12.

Comment 188

Section H, Special Conditions

In Section 5. Toxicity Violation Procedures, a. Accelerated Testing Procedures there is a requirement for a WET retest at 14 days and at 28 days of a WET test failure, death of fish or shellfish in the vicinity of the outfall, or an oily sheen noted on the surface of the water in the vicinity of the outfall.

The WET test failure may well indicate toxicity in the influent of the wastewater treatment plant. Dead fish in the vicinity could very well be from upstream death or fishing activities in the area. The presumption that the death is being caused by the WWTP effluent is a reach. If this were the case, an operator could inspect the mixed liquor that has settled in the secondary clarifiers by taking a sludge judge core and looking at a drop of the settled MLSS under a microscope. If there is sufficient microbiological life there is no indication that the plant process is toxic. This with a test for residual chlorine in the effluent and the dissolved oxygen going out in the effluent would be all that is needed to determine if it was any type of causal plant toxicity that killed the fish. These three measures would be more than logical to prove effluent toxicity without the need to spend \$3,000 on another WET test and possibly another \$3,000 after that. The EPA has not cited a single case where this has happened in NH in the Fact Sheet. Merrimack requests that the second bullet be stricken from the final permit and language to core test the secondary clarifiers for micro-life, check effluent residual chlorine, pH and D.O. is more expedient and of no actual cost to the WWTP with results within an hour of the event.

The third bullet calls for a toxicity test if there is an oily sheen on the surface of the water in the vicinity of the outfall. Again, a bucket dropped into the chlorine contact chamber effluent and an inspection of the overflow weirs from the chlorine contact tank and the secondary clarifier launders would easily determine if the cause of the oily sheen is coming from the WWTP. These actions are immediate and visually verifiable rather than the long waiting period between costly toxicity testing. The proposed action is a poor

allocation of \$3,000 from plant resources and if the WWTP investigation demonstrates no oils from the clarifier or contact chamber launders or in the outfall effluent then the NHDES oil spill bureau should be immediately called for their assistance. For this reason, Merrimack requests that the third bullet also be stricken from the final permit.

Response 188

See Response 16.

Comment 189

Benthic Survey

Special Condition 6 requiring a benthic survey for any WWTP below a dilution ratio of 100:1 appears to be a permit condition that has no practical merit. As Merrimack is at a dilution ratio of 86:1 the facility would fall under this requirement. The Fact Sheet and the permit wording do not provide one instance where a Benthic survey around a WWTP outfall in NH provided any evidence of effluent violation or where one was done due to suspicion of municipal WWTP violations.

The Merrimack River was heavily industrialized and there are numerous historical pictures of textile manufacturing yarns, dyes, slaughterhouse wastes, abandoned bridges steel structures and the like that have littered the bottom of the Merrimack River for over a hundred years. The legacy pollution is in most of the Merrimack River to its mouth in Amesbury, Massachusetts, and is over a century of waste disposal before the inception of the Clean Water Act of 1972.

PSNH undertook an extensive study (215-page report performed by Normandeau Associates) of the Merrimack River between the Gavin Falls Dam in Concord to the Hooksett Dam in Hooksett (a distance of 5.75 miles). The Merrimack Generating Station in Hooksett was in operation long before the operation of any wastewater facilities along the Merrimack River. The study was done at the end of the industrial age on the Merrimack River when the pollution would have been the highest and the legacy pollution the worst.

The 5. Benthic Macroinvertebrates¹⁴ Results of the 1975 benthic invertebrate surveys (June 27, August 12, October 8) are presented in Tables 19-21. As in the years 1970-1974, dipterans, especially chironomids, and oligochaetes were the dominant groups found during 1975. The percentage composition of these organisms ranged from 79.3% to 96.5% at Station N-10 in October and June, respectively. The relative abundance of these organisms generally declined from June to October, in part because of a relative increase in the numbers of molluscs, both clams (Pelecypoda) and snails (Gastropoda). Dominance of the benthic macroinvertebrate fauna by oligochaetes and dipterans is expected in situations like Hooksett Pond, which is characterized by low flow velocities and relatively high levels of productivity (Reid, 1961). Lowest total number of organisms for all samples combined was collected during August (L = 8458); highest occurred in June (L = 12,543); and an intermediate number was obtained during October (L = 9005).

¹⁴ [Merrimack River Monitoring Program 1975, September 1976, Normadeau \(See AR-251 for Cover Letter\)](#)

Even under the absolute worst conditions, there was little evidence of widespread benthic damage caused by the PSNH power station. Looking at the nutrient profile, the pH profile, and especially the D.O. profile there was no indication of impact from the generating station discharge. *“During the summer months, Station Zero-West weekly dissolved oxygen concentrations were approximately 1.0 ppmt lower than those of Station N-10. No dissolved oxygen concentrations were recorded which were below the 5.0 mg/l, generally considered to be the minimum concentration for the maintenance of a warm water fishery (NTAC, 1968). With the exception of dissolved oxygen and pH, no between station differences were noted for the parameters studied.”*¹⁵

This study indicates that Merrimack spending another \$20,000 + of funds the plant would need to expend to demonstrate there is not an issue with benthic deposits is evident. The NHDES has full authority over the Merrimack River and should they find localized pollution around the Merrimack WWTP outfall then they certainly can have Merrimack participate in an investigation into the causes and clean up should the pollution be caused by organic wastes or IPP violations.

¹⁵ Pg 47, C. Summary and Conclusions -- Chemical

Response 189

See Response 101.

V. Comments from Joe Ducharme, Jr., PE, BCEE, on behalf of the Town of Milford, on February 13, 2025.

Comment 190

Whole Effluent Toxicity (WET) Testing

The new draft permit requires WET Testing be performed 1x/quarter. In total, WET Testing is expected to cost the Town of Milford an estimated \$15,000 annually. A quote was obtained from Eurofins, Environment Testing Eastern Analytical and is provided in Attachment A. While the Town understands the data is important to the EPA and to the State of New Hampshire Department of Environmental Services (NHDES), it is expected that biannual WET Testing will provide sufficient data at a less burdensome expense for the Town.

The Town requests that WET Testing frequency be reduced to 2x/year to reduce the financial impact on the Town.

[EPA note: Attachment A was reviewed but not reproduced here.]

Response 190

See Response 73.

Comment 191**Benthic Survey**

As part of the new draft permit, a benthic survey is required on the receiving water (ambient characteristic) once per permit term. A quote was obtained from Normandeau Associates, Environmental Consultants for the benthic survey, which consists of field sampling, lab processing, and analysis and reporting. The quote estimated the total cost of a benthic survey to be approximately \$25,500. See attached quote from Normandeau Associates in Attachment B. While the Town understands the benthic survey data is important to the EPA and to NHDES, there is concern that if the benthic survey is required in all future NPDES permit cycles, this will carry an annual cost of approximately \$5,000 to the Town for the foreseeable future.

The Town requests that one (1) benthic survey be required in this permit term, with language included that relieves the Town of needing to perform a benthic survey in future NPDES permit cycles or EPA consider once every other permit cycle.

[EPA note: Attachment B was reviewed but not reproduced here.]

Response 191

See Response 101.

Comment 192**Per- and Polyfluoroalkyl Substances (PFAS) Testing Frequency**

The draft permit requires that (i) influent, (ii) effluent, and (iii) sludge be tested for PFAS Analytes 1x/quarter, whereas PFAS testing is not currently required in the existing permit. At an estimated cost of \$420/test, this requirement will increase the Town's annual testing costs by approximately \$5,000/year. A quote was obtained from Eurofins, Environment Testing Eastern Analytical and is provided in Attachment A. While the Town understands the importance of PFAS data to the EPA and to the NHDES, it is expected that less frequent testing will provide sufficient data while lessening the burden of additional costs to the Town.

The Town requests that the frequency of PFAS Analyte testing of the influent, effluent, and sludge be reduced from 1x/quarter to 2x/year.

Response 192

See Response 49.

Comment 193**Industrial Users PFAS Testing Compliance Schedule**

The draft permit requires that beginning the first full calendar year after the effective date of the permit (2026), the Permittee shall conduct or require annual sampling and testing of industrial discharges into the WWTF for PFAS analytes. The draft permit requires that the industrial discharges be sampled, and the sampling results shall be summarized and included in the permittee's annual Industrial Pretreatment Report which is due each year by March 1st. While the Town understands the importance of understanding PFAS data on industrial discharges to the WWTF, the Town requests that the timeframe in which to implement sampling and

reporting of PFAS of industrial discharges be extended to begin in 2027, to give the Town and the industrial users on the system time to adjust to the new sampling and testing requirements. This time adjustment will allow the Town of Milford to amend their sewer use ordinance and their industrial pretreatment program to shift the PFAS testing to the industrial users.

Response 193

Based on this comment, EPA evaluated the Industrial User PFAS monitoring requirements in Parts II.E.4 and II.F.6 of the General Permit. These provisions require PFAS monitoring in the first full calendar year after the effective date of the permit. EPA updated these provisions to indicated that such monitoring should begin in the first full calendar year after the effective date of the authorization. Given that the effective date of the Final General Permit and the authorizations will both be in 2026, the PFAS monitoring for industrial users will not be required before 2027 (as requested in the comment). Based on EPA's experience applying this requirement to over 150 POTW permits in MA and NH in recent years, EPA finds that this is sufficient time to implement this sampling.

Comment 194

The table on the following page provides a summary of the cost of sampling requirements outlined in the draft permit. Overall, sampling requirements are expected to cost the Town of Milford approximately \$56,000 on an annual basis with a total cost of approximately \$280,000 over the permit term. The substantial cost of annual testing may require a sewer user rate adjustment in order for the Town to afford the cost of additional testing requirements.

Testing	Frequency	Unit Cost (\$)	Annual Cost
<i>Effluent Characteristic</i>			
CBOD ₅ (June 1 - October 31)	2/week	\$40.60	\$2,111.20
CBOD ₅ (November 1 - May 31)	2/week	\$40.60	\$2,111.20
TSS (June 1 - October 31)	2/week	\$17.70	\$920.40
TSS (November 1 - May 31)	2/week	\$17.70	\$920.40
<i>Escherichia coli</i>	3/week	\$29.40	\$4,586.40
Dissolved Oxygen	3/week	\$14.70	\$2,293.20
Ammonia Nitrogen (May 1 - October 31)	2/week	\$18.20	\$946.40
Ammonia Nitrogen (Nov 1 - April 30)	2/week	\$18.20	\$946.40
Total Kjeldahl Nitrogen (April 1 - Oct 31)	1/week	\$32.90	\$855.40
Total Kjeldahl Nitrogen (Nov 1 - March 31)	1/month	\$32.90	\$197.40
Total Nitrate + Nitrite (April 1 to Oct 31)	1/week	\$14.70	\$382.20
Total Nitrate + Nitrite (Nov 1 to March 31)	1/month	\$14.70	\$88.20
Total Phosphorus (April 1 – Oct 31)	1/week	\$29.40	\$764.40
Total Aluminum/Total Cadmium/Total Copper/Total Lead	2/month	\$78.40	\$1,881.60
PFAS Analytes	1/quarter	\$420.00	\$1,680.00
Adsorbable Organic Fluorine	1/quarter	\$1,100.00	\$4,400.00
Pollutant Scan	1/year	\$850.00	\$850.00
<i>Whole Effluent Toxicity (WET) Testing</i>			
LC50	1/quarter	\$1,075.00	\$4,300.00
C-NOEC	1/quarter	\$2,450.00	\$9,800.00

Hardness	1/quarter	<i>incorporated into metals cost</i>	
Ammonia Nitrogen	1/quarter	<i>incorporated into weekly testing</i>	
Total Aluminum/Total Cadmium/Total Copper/Total Lead/Total Nickel/Total Zinc	1/quarter	\$78.40	\$313.60
Total Organic Carbon	1/quarter	\$36.40	\$145.60
Ambient Characteristic			
Hardness	1/quarter	<i>incorporated into metals cost</i>	
Ammonia Nitrogen	1/quarter	\$18.20	\$72.80
Total Aluminum/Total Cadmium/Total Copper/Total Nickel/Total Lead/Total Zinc	1/quarter	\$78.40	\$313.60
Total Organic Carbon	1/quarter	\$36.40	\$145.60
Dissolved Organic Carbon	1/quarter	\$47.60	\$190.40
Total Phosphorus (April 1 – October 31)	1/month	\$29.40	\$176.40
Pollutant Scan	1/Year	\$850.00	\$850.00
Benthic Survey (DMR Attachment)	Once	\$25,000	\$5,000.00
Influent Characteristic			
CBOD ₅ (June 1 - October 31)	2/month	\$40.60	\$974.40
TSS	2/month	\$14.70	\$352.80
PFAS Analytes	1/quarter	\$420.00	\$1,680.00
Adsorbable Organic Fluorine	1/quarter	\$1,100.00	\$4,400.00
Sludge Characteristic			
PFAS Analytes	1/quarter	\$420.00	\$1,680.00
Annual Total Cost of Sampling			\$56,330.00
Permit Term Total Cost of Sampling			\$281,650.00

The Town is requesting that after the Agency has considered these comments and modified the draft permit, that the “revised draft permit” be reissued for public comment to allow the Town and other interested parties to review and comment on these documents before the “revised draft permit” is issued as a “final effective permit”.

Response 194

Regarding cost, see Response 1.

Regarding the request to issue a revised draft permit, as noted at the beginning of this Response to Comments document, while EPA’s knowledge of the WWTFs 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 or the issuance of a revised draft permit. 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.

W. Comments from David Coppes, Chief Operating Officer, Massachusetts Water Resources Authority, on February 12, 2025.

Comment 195

Comments on inclusion of Co-permittees in the draft NPDES permit

MWRA appreciates that EPA has included language that provides clarity about responsibilities among the Co-permittees. However, MWRA continues to have reservations about the inclusion of municipal entities that are not directly discharging to a water of the state of New Hampshire or the United States. MWRA remains concerned that the Co-permittee model is inconsistent with the intent of the Clean Water Act, 33 U.S.C. § 1251 et seq. (“CWA”) does not provide statutory authorization for EPA to take such actions in the Draft Permit. Moreover, even if it can be argued that the CWA provides discretionary authority for EPA to regulate the identified Co-permittees in a single NPDES permit, EPA’s actions nevertheless constitute an abuse of that discretion.

Response 195

EPA included a detailed, 19-page explanation in the Fact Sheet of its technical and legal rationale and authority for including co-permittees in this permit. *See* Appendix E to Fact Sheet. EPA addressed the points made in this comment in the Fact Sheet and this comment does not address or rebut with any specificity those explanations. EPA again reiterates its position laid out in the Fact Sheet. EPA does not view this approach as an abuse of discretion, but a necessary action to ensure achievement of water quality standards consistent with CWA Section 301(b).

Refer to Fact Sheet Appendix E for the factual and legal basis of EPA’s Co-permittee permitting approach.

Comment 196

Comments on inclusion of narrative requirements in the Draft Permit

As EPA is aware, the U.S. Supreme Court is expected to rule on EPA’s authority to impose certain types of troubling conditions and non-quantifiable standards (e.g., generic narrative prohibitions) when issuing NPDES permits. *City and County of San Francisco, California, Petitioner v. Environmental Protection Agency*, Sup. Ct. No. 23-753. Provisions within the Draft Permit may be impacted by this anticipated ruling. MWRA does not agree with inclusion of such provisions but will reserve comment until the Court’s ruling.

Response 196

See Responses 5 and 52.

Comment 197

Comments on Part II.A.1 Footnote 15 (Adsorbable Organic Fluorine)

MWRA is concerned that monitoring of Adsorbable Organic Fluorine (“AOF”) is untested and the data may be impossible to interpret. MWRA recognizes the value of a measurement that would cover all of the thousands of possible PFAS compounds as a class, however, the method is not ready for use in NPDES monitoring. The justification in the Fact Sheet does not address several issues with the method (“Method 1621”).

Method 1621 (dated January 2024) explicitly states that “[t]his document represents the AOF

method developed by the EPA Office of Water, Engineering and Analysis Division (EAD). *This method is not approved for Clean Water Act compliance monitoring until it has been proposed and promulgated through rulemaking.*” (emphasis supplied)

Conversely, EPA issued a memo (dated December 5, 2022) allowing permit writers to include then Draft Method 1633 in permits, even though it had not been finalized and promulgated. This memo indicated that *“The draft Adsorbable Organic Fluorine CWA wastewater method 1621 can be used in conjunction with draft method 1633, if appropriate.”* MWRA believes that this is not appropriate at this time for the following reasons.

AOF in aqueous matrices by combustion ion chromatography is a “method-defined parameter” defined solely by the method used to determine the analyte. Any changes to the method necessitated by the results of the multi-laboratory validation study or public comments on the method could invalidate any prior data collected using the procedure before promulgation.

EPA completed the multi-laboratory validation study in 2023 and published results in a report issued in January 2024. Upon review, MWRA found the inter-laboratory variability was very high across all types of samples and many results were reported as not detected. This further supports the concern that Method 1621 is simply not sensitive enough to produce usable data on wastewater samples.

By requiring measurement of AOF using Method 1621 in the draft NPDES permit, EPA is sidestepping the requirements of the Paperwork Reduction Act, instead of following the information collection procedures required by that Act. EPA is currently engaged in planning a national Information Collection Rule (“ICR”) study to collect the information that adding it to NPDES permits would accomplish. EPA should complete that process, and properly promulgate Method 1621 prior to requiring it in NPDES permits.

The current detection limits are on the order of 5,000 ng/L as F. In addressing concerns about the presence of PFAS at ng/L levels, the analysis may not produce useful results, even aside from questions about precision, accuracy, comparability, or repeatability noted above. EPA should complete the ICR study described above, and demonstrate what benefits AOF measurements could contribute to NPDES PFAS monitoring programs before making it a permit requirement.

MWRA estimates a cost for this analysis of about \$300 - \$400 per sample. Other wastewater treatment plants have been quoted prices as high as \$1,200 per sample. The pricing situation may improve once EPA has fully promulgated Method 1621, but is not likely to improve before the method has been promulgated.

Permittees may not be able to find laboratories to do this analysis as, based on inquiries MWRA has made, there is currently a shortage of labs able to perform this test. At a minimum, there would be additional cost related to sample handling and shipping. This cost is an unreasonable burden to put on Permittees, especially because the data generated prior to Method 1621 being approved are likely to be unusable for decision-making.

MWRA recommends that the requirement to monitor and report on AOF be removed from the Draft Permit. At a minimum, it should be deferred until an available approved method is promulgated.

Alternatively, MWRA recommends Footnote 15 be revised, as follows:

Report in nanograms per liter (ng/L) for effluent and influent samples. Until there is an analytical method approved in 40 CFR Part 136 for Adsorbable Organic Fluorine, monitoring shall be conducted using Method 1621. This reporting requirement takes effect the first full calendar quarter following six months after ~~the effective date of the authorization~~ EPA notifies the Permittee that Method 1621 has been promulgated.

Response 197

See Response 11.

The Paperwork Reduction Act (PRA), 44 U.S.C. 35, governs how the federal government collects information. The PRA provides methods for federal agencies to obtain approval from the Office of Management and Budget (OMB) before collecting certain information from members of the public. *See generally* Office of Management and Budget, [pra.digital.gov](https://www.pra.digital.gov).

The comment avers that requiring the permittee to monitor and report on its AOF discharges violates the PRA by allegedly duplicating another EPA AOF information collection effort, and the comment suggests that EPA should use that AOF information, when available, instead of requiring the permittee to monitor and report on AOF as a condition of this permit. The commenter may be referring to the “Publicly Owned Treatment Works (POTW) Influent Per- and Polyfluoroalkyl Substances (PFAS) Study and National Sewage Sludge Survey,” which OMB is currently reviewing. *See* Office of Information and Regulatory Affairs (OIRA) Information Collections Under Review, ICR Reference No. 202410-2040-006, available at [reginfo.gov](https://www.reginfo.gov). That ICR is unrelated and inapplicable to this draft permit’s AOF monitoring and reporting requirements.

Even if this is not the proposed ICR to which the commenter refers, NPDES permit monitoring and reporting requirements are authorized by the Office of Management and Budget-approved National Pollutant Discharge Elimination System (NPDES) Program Information Collection Request, ICR Reference No. 22201-2040-004. The NPDES Program ICR calculates the burden and costs that all NPDES permit applicants and permittees nationwide may bear while providing NPDES permitting authorities with wide-ranging information necessary for the NPDES permitting authority to develop, issue, and enforce NPDES permits. The NPDES Program ICR specifically accounts for permittees’ monitoring, reporting, and recordkeeping requirements.

Comment 198

Comments on Part II.A.1 Footnotes 18 (Whole Effluent Toxicity (“WET”) Testing) and 24 (Aesthetics) and Part II.H.5 (Toxicity Violation Procedures)

Part II.A.1 Footnotes 18 and 24 direct Permittees to Part II.H.5 of the Draft Permit to conduct at least two accelerated WET re-tests within 14 days and 28 days of:

- any WET test result in violation of a Permittee's WET limit,
- the Permittee identifies or is provided notice of a sudden and significant death of large numbers of fish and/or shellfish in the vicinity of the discharge, or
- an oily sheen is observed on the surface of the water in the vicinity of the outfall during the monthly visual inspection

MWRA notes that this requirement departs from the current established WET testing frequencies specified in Region 1 NPDES permits. WET tests are expensive, ranging in the thousands of dollars per test. Further, EPA has not provided scientific and technical evidence supporting accelerated re-testing as more representative of the distribution of pollutants and concentrations of toxicity compared to monthly or quarterly WET testing frequencies.

The scenarios that would require a Permittee to begin accelerated WET re-tests are not clearly indicative of an effluent toxicity violation. Often, other factors are in play, including:

- A WET test failure caused by several confounding factors including additive, synergistic, or antagonistic effects of contaminants in effluent and receiving water, poor test organism health, or even inadequate laboratory practices.
- Large-scale fish die-offs that are the result of low levels of dissolved oxygen in the receiving water caused by other stressors.
- Oil sheens in receiving waters that are the result of petroleum discharged from stormwater or an oil spill, especially in navigable waters.

Investigations of large-scale receiving water fish die-offs and oil sheens should be left to local/state fish and wildlife officials or environmental emergency responders rather than Permittees.

If one of the two of a Permittee's accelerated re-tests fails, Part II.H.5 instructs the Permittee to automatically begin a Toxicity Identification Evaluation and Toxicity Reduction Evaluation ("TIE/TRE"). The requirement to initiate a TIE/TRE after two WET test failures is overly punitive. TIE/TRE call for trained and experienced professionals that are scarce nationally. TIE/TREs can be long lasting, high in cost, and unsuccessful in identifying a definitive pollutant(s) or source(s) of toxicity. Including this requirement in the Final Permit would likely add significant cost burden without any corresponding increase in beneficial use protection.

Therefore, MWRA does not agree with requiring accelerated re-testing for the three outlined scenarios, as written. MWRA instead recommends that EPA continue the WET testing frequencies that were used in previously issued Region 1 NPDES permits. Additionally, the need and frequency of re-testing and additional investigations like a TIE/TRE should be determined by toxicity and aesthetics response plans developed by the Permittee. Accordingly, MWRA recommends that EPA modify Footnotes 18 and 2, as well as Part II.H.5., as follows:

FN.18. If the results indicate a violation of any toxicity limit ~~or if the Permittee identifies or is provided notice of a sudden and significant death of large numbers of fish and/or shellfish in the vicinity of the discharge~~, the Permittee shall follow the procedures described in ~~Part II.H.5 below~~ the toxicity and aesthetics response plan (Part II.H.5).

FN. 24. If an oily sheen is observed on the surface of the water in the vicinity of the outfall during the monthly visual inspection, the Permittee shall follow the procedures described in ~~Part II.H.5 below~~ the toxicity and aesthetics response plan (Part II.H.5).

Part II.H.5. Toxicity ~~Violation Procedures~~ and Aesthetics Response Plan

Permittees shall develop a toxicity and aesthetics response plan that outlines actions the Permittee will take when WET test results are in violation of permit limits. The toxicity and aesthetics response plan must also include a list of local/state fish and wildlife officials and/or environmental emergency responders to be notified if an oily sheen is observed on the surface of the water in the vicinity of the outfall during the monthly visual inspection.

~~a. Accelerated WET Testing~~

~~b. TIE/TRE~~

Response 198

Regarding the claim that EPA has not provided scientific and technical evidence supporting accelerated re-testing as more representative than quarterly WET testing, EPA notes that this accelerated WET testing requirement is intended to identify persistent toxicity as quickly as possible and not to establish long-term representativeness. Therefore, EPA finds that the accelerated timeframes are necessary. See also Response 120.

Regarding the comment that other factors may cause a WET violation, EPA agrees and notes that Part II.H.5.a indicates that the accelerated re-test requirement is only triggered if “the test acceptability criteria were met.” Therefore, this requirement is not triggered in many cases where the WET violation is due to factors outside the Permittee’s control (*e.g.*, poor test organism health, or even inadequate laboratory practices) However, if the WET violations are due to “additive, synergistic, or antagonistic effects of contaminants in effluent and receiving water,” EPA finds that such factors are precisely what a WET test is designed to identify and such toxic effects do trigger this accelerated re-test provision.

Regarding “Large-scale fish die-offs that are the result of low levels of dissolved oxygen in the receiving water caused by other stressors,” see Response 16 which clarifies that this provision is not triggered if the Permittee identifies another likely source.

Regarding oily sheens, see Response 16.

Regarding the suggestion to require a toxicity and aesthetics response plan to notify a list of local/state fish and wildlife officials and/or environmental emergency responders, EPA agrees that if the Permittee identifies a sudden and significant death of large numbers of fish and/or shellfish in the receiving water that is not likely caused by the discharge, the Permittee should notify the appropriate officials who can investigate and address the environmental concern most expeditiously. EPA has included this as a notification requirement in the Final General Permit.

Comment 199

Comments on Part II.A.1 Footnote 25 (Benthic Survey)

MWRA supports the position outlined by New Hampshire's Department of Environmental Services in their draft water quality certification for this Draft Permit that requiring a benthic survey should be contingent upon clear evidence or strong suspicion that a discharge's benthic deposits harm downstream benthic communities, and that more in-depth data are needed to decide whether additional safeguards are required.

A Professional Freshwater Macroinvertebrate Taxonomist is a highly specialized position. It could prove difficult to find a professional who holds the proper certifications to perform a benthic survey in the suggested time frame of the third calendar quarter. Other wastewater treatment plants in New Hampshire that will potentially be sharing the same benthic requirements will essentially be competing to hire certified professionals that are few and far between. This could put a strain on not only the treatment plants trying to meet the required deadline, but the professionals completing the survey as well.

Benthic surveys come at a significant cost, ranging in the tens of thousands of dollars. MWRA believes that before adding the extra logistical and financial burden of organizing and conducting a once per permit term survey, EPA should provide evidence that the Permittee's discharge has a negative effect on the downstream benthic environment.

Response 199

See Response 101.

Comment 200

Comments on Part II.C.1 (Adaptation Planning)

MWRA recommends that the five year limit on the applicability of prior assessments be dropped. Placing the arbitrary condition of not applying prior assessments completed more than five years before the effective date of the Final Permit disregards critical work. Permittees should not be penalized for completing assessments more than five years before the Final Permit is issued.

For example, between 2013-2016, MWRA assessed each of its coastal and near-coastal facilities to determine if the facility would be flooded in a 100-year storm (based on FEMA maps) with 2.5 feet of sea level rise, corresponding to roughly a 2050 to 2060 sea level rise benchmark. The result was a ranking of 16 facilities that could be impaired, most of which are part of the wastewater system. MWRA has installed flood protection measures at most facilities and is

completing work at the remaining facilities – including walls around critical equipment, stop logs at windows and doors, and elevating critical equipment in facilities undergoing substantial rehabilitation projects. The assumed risk of 2.5 feet of sea level rise used in MWRA’s 2013-2016 facility assessment is still in line with the latest projections in Massachusetts’ Coastal Flood Risk Model and the Greater Boston Research Advisory Group Report¹ through the middle of the century – significantly mitigating the near- and mid-term risk to MWRA’s infrastructure. Permittees should be able to use assessments which still align with the latest projections to comply with the relevant requirements of the Adaptation Plan.

¹ Douglas E. and Kirshen, P. 2022. *Climate Change Impacts and Projections for the Greater Boston Area: Findings of the Greater Boston Research Advisory Group Report*. Boston: University of Massachusetts, Boston, June 2022.

Response 200

See Response 2.

Comment 201

Comments on Part II.F.2.i (Pretreatment Enforcement)

Part II.F.2.i of the Draft Permit sets certain pretreatment enforcement obligations for the Permittees, including the requirement to “...enforce all applicable Pretreatment Standards and requirements and obtain remedies for noncompliance by any industrial user.” To ensure consistency with the terms of the existing NPDES permits, MWRA recommends that the word “appropriate” be added to the referenced clause in Part II.F.2.i, as follows:

“...enforce all applicable Pretreatment Standards and requirements and obtain appropriate remedies for noncompliance by any industrial user.”

Response 201

EPA agrees that adding the word “appropriate” is appropriate and has made this change in the Final General Permit.

Comment 202

Comments on Part II.F.4 (Notification Requirements)

Part II.F.4 of the Draft Permit is unclear. For example, Part II.F.4.a requires Permittees to notify EPA within 60 days of the introduction of new pollutants from any industrial user. If the issuance of a permit to a new company is considered the introduction of new pollutants, reporting will be extremely frequent and perhaps not in accordance with EPA’s intent. For reference, in FY 2023, MWRA issued over 175 new permits, most of which were for “Category 10s” (low flow and low pollutant) and “Category D1s” (dental discharges) as defined in 360 CMR 10.101(2)(g). This would not include the number of permitted industries that change the processes to include a new pollutant. Accordingly, MWRA recommends that the language in Part II.F.4.a that requires Permittees to notify EPA within 60 days of the introduction of new pollutants from any industrial user be modified, as follows:

The Permittee shall notify EPA within 60 days of the introduction of new pollutants from any new SIUs, new connections at a permitted SIU, or any amendment to an existing SIU permit. All other new permits will be reported in the annual

pretreatment report.

Response 202

EPA agrees with this proposed change and has updated the Final General Permit accordingly.

Comment 203

Comments on Part II.H.1 (Ambient Phosphorus Monitoring)

MWRA appreciates that the language defining the dry weather condition has been clarified from that provided in the 2022 Massachusetts Medium Wastewater Treatment Facilities General Permit. This clarification will aid Permittees with the design of their sampling plans to confidently target low flow conditions.

Response 203

EPA acknowledges this comment.

X. Comments from Jillian Aicher and Tom Irwin, Conservation Law Foundation, on February 11, 2025.

Comment 204

Conservation Law Foundation (CLF) appreciates the opportunity to comment on EPA's Draft National Pollutant Discharge Elimination System (NPDES) General Permit for New Hampshire Medium Wastewater Treatment facilities. CLF is a member-supported, nonprofit environmental advocacy organization that works in New Hampshire and throughout New England to protect the environment for the benefit of all people. CLF has a long history of advocacy to protect water resources in New Hampshire.

As EPA is well aware, per- and polyfluoroalkyl substance (PFAS) pollution represents a significant threat to human health and the environment that EPA and other regulators are still catching up to address.¹ Having explicitly acknowledged the importance of monitoring for PFAS and reducing PFAS contributions to WWTFs,² the General Permit for Medium WWTFs in New Hampshire presents EPA an important opportunity to establish permit requirements consistent with its own recommendations and to proactively protect surface waters and local communities from PFAS pollution.

As set forth below, CLF urges EPA to follow its own recommendations by including not only PFAS monitoring provisions in the final NPDES permit, but also by requiring PFAS prevention and reduction measures. We also urge EPA to retain the narrative limits present in permits of currently-eligible WWTFs and Part III.A.1 of the current General Permit for Publicly Owned Treatment Works.³ Finally, we support the Adaptation Planning measures in Part II.C of the Draft Permit.

¹ Hiroko Tabuchi, *The EPA Promotes Toxic Fertilizer. 3M Told It of Risks Years Ago*. New York Times, (Dec. 27, 2024), accessible at <https://www.nytimes.com/2024/12/27/climate/epa-pfas-fertilizer-3m-forever-chemicals.html> ("The

data suggested that the toxic chemicals, made by 3M, were fast becoming ubiquitous in the environment. The company's research had already linked exposure to birth defects, cancer and more. That sewage was being used as fertilizer on farmland nationwide, a practice encouraged by the Environmental Protection Agency.”)

Hiroko Tabuchi, *Their Fertilizer Poisons Farmland. Now, They Want Protection from Lawsuits*. New York Times, (Dec. 6, 2024), accessible at <https://www.nytimes.com/2024/12/06/climate/sludge-fertilizer-synagro-lobbying.html> (“The E.P.A. continues to promote sludge as fertilizer. It regulates harmful pathogens and some heavy metals in biosolids, but not PFAS.”)

Hiroko Tabuchi, *Her Children Were Sick. Was It “Forever Chemicals” on the Family Farm?* New York Times, (Sept. 21, 2024), accessible at <https://www.nytimes.com/2024/09/21/climate/farm-pfas-meat-poison-sewage-sludge.html> (“The E.P.A. has more recently said that no level of certain kinds of PFAS is safe. ‘We’re starting to find out that agricultural soil is a big source of PFAS,’ said Samuel Ma, an associate professor of civil and environmental engineering at Texas A&M University who studies emerging contaminants. But regulators ‘seem to only be focusing on drinking water.’”)

Hiroko Tabuchi, *5 Takeaways from Our Reporting on Toxic Sludge Fertilizer*. New York Times, (Aug. 31, 2024), accessible at <https://www.nytimes.com/2024/08/31/climate/takeaways-pfas-sludge-fertilizer.html> (“For decades, the government has encouraged farmers across the United States to spread sewage sludge on their cropland and pastures. But now there’s a growing awareness that sludge fertilizer can contain heavy concentrations of “forever chemicals” linked to cancer, birth defects and other health risks.”)

Hiroko Tabuchi, *Something’s Poisoning America’s Land. Farmers Fear “Forever Chemicals.”* New York Times, (Aug. 31, 2024), accessible at <https://www.nytimes.com/2024/08/31/climate/pfas-fertilizer-sludge-farm.html> (“E.P.A.’s own researchers have found elevated levels in sewage sludge. And in the agency’s most recent survey of biosolids, PFAS were almost universal. A 2018 report by the E.P.A. inspector accused the agency of failing to properly regulate biosolids, saying it had ‘reduced staff and resources in the biosolids program over time.’”)

² 90 Fed. Reg. 3859, 3863–64 (Jan. 25, 2025) (emphasis added) (Regardless of the management practice to use or dispose of sewage sludge, exposure and risk reduction is possible through pretreatment at industrial facilities discharging to a WWTP . . . The EPA recommends that states, Tribes, and WWTPs monitor sewage sludge for PFAS contamination, identify likely industrial discharges of PFAS, and implement industrial pretreatment requirements, where appropriate.”); see also Memo from Radhika Fox to Water Division Directors, Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority at 3 (April 28, 2022), https://www.epa.gov/system/files/documents/2022-04/npdes_pfas-memo.pdf (recommending that EPA require best management practices “and pollution prevention to address PFAS discharges to” municipal WWTFs.”)

³ See, e.g., EPA, NPDES Permit No. NH0101311—City of Dover at 4 (2006), accessible at <https://www3.epa.gov/region1/npdes/permits/2006/finalnh0101311permit.pdf>; U.S. EPA, NPDES Permit No. NH 0100455—Town of Durham at 5 (1999), accessible at <https://www3.epa.gov/region1/npdes/permits/finalnh0100455permit.pdf>; EPA, Publicly Owned Treatment Works General Permit POTW GP MAG580000, GP NHG580000 (2011), accessible at <https://www3.epa.gov/region1/npdes/permits/potw/POTWGP-2011.pdf>.

Response 204

EPA acknowledges this comment and has responded to the issues raised below.

Comment 205

Background

PFAS are harmful pollutants linked with cancer, immunotoxicity, developmental delays, and reproductive impacts in humans.⁴ PFAS also negatively affect animals, including aquatic life.⁵

Wastewater treatment plants receive PFAS-contaminated influent and release them back into the environment through both wastewater effluent discharges and sewage sludge disposal.

EPA has acknowledged that wastewater treatment facilities receive toxic PFAS chemicals and cannot destroy or remove or destroy PFAS, and that they place communities at risk as a result. In its January 2025 Draft Health Risk Assessment for PFOA and PFOS in Sewage Sludge, EPA stated that “[t]raditional wastewater treatment technology does not remove or destroy PFOA or PFOS, and these chemicals typically accumulate in the sewage sludge.”⁶ Recent scientific literature (the Ruyle Study) verifies that WWTFs do not remove PFAS and, as a result, they release PFAS into surface waters in addition to creating PFAS-contaminated sludge.⁷ The Ruyle Study modeled the impacts of PFAS discharges from wastewater treatment facilities and found that PFAS discharges from wastewater treatment plants “impair drinking water supplies for [more than] 20 million Americans[.]”⁸

Both EPA and scientists have concluded that upstream industrial source reduction will mitigate PFAS exposures and associated risks. After analyzing health risks from PFAS in sewage sludge disposal, EPA concluded that requiring pretreatment from industrial users that discharge into wastewater treatment facilities can “achieve significant reductions” and recommended that wastewater treatment plants “implement industrial pretreatment requirements, where appropriate.”⁹ The Ruyle Study authors similarly interpreted their results as “emphasizing the importance of reducing diverse PFAS sources entering wastewater.”¹⁰

Twenty-one wastewater treatment plants that discharge effluent into Class B surface waters throughout New Hampshire are eligible for coverage under the proposed General Permit.¹¹ Through this permit, EPA has the authority and the opportunity to control important sources of toxic PFAS pollution.

EPA Should Expand PFAS Monitoring and Include PFAS Reduction Requirements in the Final Permit

The bedrock purpose of the Clean Water Act is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). EPA has recognized that PFAS jeopardize the integrity of the Nation’s waters and pose serious hazards to human health and the environment.¹² WWTFs do not remove or destroy PFAS, as described above, resulting in PFAS releases to the environment through WWTF effluent and sewage sludge disposal.¹³ To mitigate hazards from PFAS in wastewater effluent discharges and sludge disposal, EPA should make the following changes before finalizing Draft Permit.

EPA Should Request PFAS Data from All WWTFs Eligible for Coverage Under the General Permit

EPA’s fact sheet states that the agency used the best available data “to characterize each discharge and each receiving water and to identify the pollutants of concern and evaluate the need for effluent limitations.”¹⁴ Those data were either provided to EPA by the Permittees in permit applications or monitoring reports, or “other publicly available data were used if they were deemed the best available data.”¹⁵ Nothing in the Draft Permit or fact sheet indicates that EPA requested PFAS data from the eligible WWTFs or considered publicly available PFAS data for

receiving waters, where available. Some WWTFs in New Hampshire have already been monitoring for PFAS, which provides an important source of information when drafting WWTF permits.¹⁶

EPA should require each eligible WWTF to provide any data it has for PFAS in its influent, effluent, sludge, or other environmental media. Federal regulations provide EPA authority to “require sampling for additional pollutants, as appropriate, on a case-by-case basis” for wastewater treatment plants’ permit applications. See 40 CFR § 122.21(j)(4)(v). Under that authority, the agency should use responsive data and any available PFAS data for receiving waters¹⁷ to develop effluent limits and source control measures for PFAS, as described below.

⁴ Our Current Understanding of the Human Health and Environmental Risks of PFAS, EPA, <https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas>.

⁵ Serena E. George et al., *Nonlethal Detection of PFAS Bioaccumulation and Biomagnification Within Fishes in an Urban- and Wastewater-dominant Great Lakes Watershed*, 321 *Env’t Pollution* 121123, 121123 (2023). 66 Changhui Liu et al., *Oxidative Toxicity of Perfluorinated Chemicals in Green Mussel and Bioaccumulation Factor Dependent Quantitative Structure-activity Relationship*, 33 *Env’t Toxicology & Chemistry* 2323, 2332 (2014); See generally Guang-hua Lu et al., *Toxicity of Perfluorononanoic Acid and Perfluorooctane Sulfonate to Daphnia Magna* 8 *Water Sci. & Engineering* 40 (2015).

⁶ 90 Fed. Reg. 3859, 3861, 3863 (Jan. 25, 2025).

⁷ Ruyle et al., 122 *PNAS* 3, *High organofluorine concentrations in municipal wastewater affect downstream drinking water supplies for millions of Americans* (Jan. 6, 2025), accessible at <https://doi.org/10.1073/pnas.2417156122> (“Data presented here suggest that US POTWs do not effectively remove most [extractable organic fluorine] prior to effluent discharge, regardless of whether they have secondary or tertiary treatment . . . Aquatic discharges from POTWs contain elevated levels of PFAS, including PFAA, PFAA precursors, and polyfluorinated pharmaceuticals.”)

⁸ Ruyle et al.

⁹ 90 Fed. Reg. 3859, 3863–64 (Jan. 25, 2025).

¹⁰ Ruyle et al.

¹¹ EPA, Draft New Hampshire Medium Wastewater Treatment Facility Draft General Permit, NHG590000 Fact Sheet at 51 (2024) [hereinafter Fact Sheet].

¹² EPA, PFAS Strategic Roadmap: EPA’s Commitments to Action 2021–2024 at 5, 7 (October 2021), accessible at https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf.

¹³ 90 Fed. Reg. 3859, 3861, 3863 (Jan. 25, 2025) see also Ruyle et al.

¹⁴ Fact Sheet at 16.

¹⁵ *Id.*

¹⁶ See, e.g., Conservation Law Foundation, Comments on Draft NPDES Permit No. NH0100447 at 4–5 (June 10, 2024), accessible at <https://www.clf.org/wp-content/uploads/2024/07/2024-6-10-CLF-Comments-on-Manchester-NH-Draft-NPDES-Permit.pdf> (describing that the City of Manchester has monitored for PFAS since 2019).

¹⁷ EPA should at minimum consider the following source of data on PFAS in NH receiving waters and fish: See Heidi M. Pickard et al., *PFAS and Precursor Bioaccumulation in Freshwater Recreational Fish: Implications for Fish Advisories*, 56 *ENV’T SCI. & TECH.* 15573 (2022), <https://pubs.acs.org/doi/10.1021/acs.est.2c03734>; see also Heidi M. Pickard Et al., *Supporting Information for PFAS and Precursor Bioaccumulation in Freshwater Recreational Fish: Implications for Fish Advisories* (2022), https://pubs.acs.org/doi/suppl/10.1021/acs.est.2c03734/suppl_file/es2c03734_si_001.pdf.

Response 205

EPA acknowledges that some of the eligible WWTFs may have limited amounts of existing PFAS data. However, EPA did not request permittees to submit such data because EPA’s national approach to PFAS regulations is to use Method 1633 for the collection of consistent data to ensure that permitting decisions are based on consistent, verified and robust datasets. Given that Method 1633 was not fully multi-lab validated

until January 2024, EPA only had very limited data during the development of this General Permit in mid-2024.

Comment 206

EPA Should Include and Strengthen PFAS Monitoring Provisions in the Final Permit.

CLF supports EPA including PFAS monitoring in the Draft Permit and urges EPA to expand monitoring measures in the permit by requiring quarterly, not annual, monitoring of industrial users (IUs) and by including a requirement for WWTFs to monitor IUs using method 1621 in addition to method 1633.

Monitoring and reporting for PFAS – at the wastewater treatment plants and their individual IUs – will benefit both EPA and the eligible municipalities by characterizing the sources of PFAS into the WWTFs and better informing strategies to reduce PFAS in the WWTFs’ effluent and sludge. Monitoring information is essential because PFAS are a class of persistent and health-harming pollutants and their presence in effluent and sludge from WWTFs poses risks for surface waters; for communities that rely on those surface waters for drinking water, fish consumption, or recreation; and for communities impacted by sludge disposal. All WWTFs eligible for coverage under the General Permit discharge into Class B waters designated for aquatic life protection, recreation, fish consumption, and potential drinking water supply.¹⁸ PFAS contributions are harmful to those important designated uses.

The Clean Water Act and its regulations provide EPA with authority to include monitoring requirements for PFAS and Adsorbable Organic Fluorine (AOF, a nontargeted measurement for the large class of PFAS chemicals) in the WWTF’s influent, effluent, and sludge. The statute provides that EPA may issue permits that include conditions the Agency “determines are necessary to carry out the provisions of” the Clean Water Act, “including conditions on data and information collection, reporting, and such other requirements as [EPA] deems appropriate.” 33 U.S.C. § 1342(a). EPA regulations provide that the agency “shall establish conditions, as required on a case-by-case basis, to provide for and ensure compliance with all applicable requirements of” the Clean Water Act and its implementing rules. 40 C.F.R. § 122.4(a).

Additional EPA regulations not only authorize, but also require, every NPDES permit to contain conditions, including monitoring requirements, “when applicable.” 40 C.F.R. § 122.44(i). Monitoring requirements for PFAS and AOF are applicable at the 21 eligible WWTFs, as they will allow EPA and the WWTFs to “assess treatment efficiency, characterize effluents and characterize receiving water.”¹⁹

Narrative criteria and recent numeric criteria developments provide EPA with additional basis and need for requiring monitoring. New Hampshire statutory and regulatory narrative water quality criteria state that “all surface waters shall be free from toxic substances or chemical constituents in concentrations or combination that injure or are inimical to plants, animals, humans, or aquatic life[.]” RSA 485-A:8, VI; N.H. Code Admin. 1703.21(a)(1). PFAS chemicals are “toxic substances” within the meaning of the state narrative language, as EPA’s own statements make clear. In finalizing maximum contaminant levels for certain PFAS under the Safe Drinking Water Act, EPA stated that “[t]he adverse health effects associated with exposure to such PFAS

include (but are not limited to): effects on the liver (e.g., liver cell death), growth and development (e.g., low birth weight), hormone levels, kidney, the immune system (reduced response to vaccines), lipid levels (e.g., high cholesterol), the nervous system, and reproduction, as well as increased risk of certain types of cancer.”²⁰ In proposing to designate nine PFAS compounds as constituents under the Resource Conservation and Recovery Act (RCRA), EPA stated that those PFAS, “have toxic effects on humans or other life forms.”²¹ In addition to being toxic, injurious, and inimical to humans and animals on their own, EPA has recognized that many PFAS persist in the environment and bioaccumulate in edible fish tissue. In establishing interim and final health advisories under the Safe Drinking Water Act, EPA stated that “[m]any PFAS are environmentally persistent, bioaccumulative, and have long half-lives in humans[.]”²² In promulgating a final “hazardous substance” designation for PFOA and PFOS under the Comprehensive Environmental Response, Compensation, and Liability Act, EPA stated that evidence “indicated that PFOA and PFOS are persistent in the environment and that they bioaccumulate in both humans and wildlife.”²³

Recent developments in federal and state surface water quality criteria also support PFAS and AOF monitoring. On October 7, 2024, EPA finalized numeric aquatic life water quality criteria for PFOA and PFOS and benchmarks for eight other PFAS compounds.²⁴ On December 26, 2024, EPA also proposed numeric human health water quality criteria for PFOA, PFOS, and PFBS.²⁵ The State of New Hampshire also has taken recent action related to water quality criteria, proposing, on October 29, 2024, numeric surface water quality criteria for PFAS.²⁶

Clean Water Act regulations authorize EPA to require monitoring for PFAS and AOF at WWTFs using methods 1633 and 1621. Regulations specify that “[i]n the case of pollutants or pollutant parameters for which there are no approved methods under” federal regulations, “monitoring shall be conducted according to a test procedure specified in the permit for such pollutants or pollutant parameters.” 40 C.F.R. § 122.44(i)(1)(iv)(B)). Because PFAS and AOF do not yet have monitoring methods approved in federal regulations, EPA has authority to specify methods 1633 and 1621 in the permit.

In addition to PFAS monitoring in influent, effluent, and sludge at the WWTFs, quarterly—as opposed to annual—data on targeted and nontargeted PFAS in industrial wastewater will help identify sources of PFAS into the eligible WWTFs and will inform reduction measures to control discharges of toxic pollutants that the WWTFs cannot remove.

New Hampshire law explicitly authorizes WWTFs to monitor PFAS from industrial sources. RSA 485-A:5-e, I allows WWTFs to “require any industrial or commercial facilities . . . contributing discharge to its plant to test such discharge to determine the level of PFAS in the discharge.” The law allows the WWTF to impose PFAS testing requirements such as:

- (a) Identification of potential sources of PFAS using safety data sheets or other specification sheets.
- (b) Sample test result of the discharge measuring levels of PFAS in the discharge provided to the wastewater treatment plant.

(c) Submission of an annual report to the municipality in which the wastewater treatment plant containing [sic] a list of the test results.

RSA 485-A:5-e, I.

The Ruyle Study confirms that EPA should require Industrial User monitoring using both method 1633 and method 1621. That study considered PFAS and organofluorine in WWTF influent and effluent, stating that most PFAS monitoring in wastewater considers only “a few intensively studied PFAS,” but nontargeted testing reveals that wastewater treatment plant effluent contains “large quantities of unknown organofluorine.”²⁷ The authors state empirical data from “major organofluorine sources” is “critically needed.”²⁸ Further analysis of “unknown organofluorine,” according to the authors, is essential to determine “accumulation of any replacement PFAS used by industry following the phase out of legacy compounds[,]” demonstrating the basis for requiring nontargeted organofluorine monitoring through 1621 for Industrial Users.²⁹

Including method 1621 monitoring requirements for IUs also corresponds with EPA’s own recommendations in its April 2022 memorandum, “Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority.”³⁰ That memo states that EPA can require AOF monitoring in addition to method 1633, “if appropriate.”³¹ It is appropriate to require quarterly monitoring of IUs of all Medium WWTFs using both methods 1633 and 1621, given that recent literature emphasized the significant presence of “unknown organofluorine” in wastewater and emphasized that “[e]xperts have called for a class-based approach for regulating organofluorine, focusing on PFAS, due in part to the extreme persistence of these compounds and their transformation products[.]”³²

¹⁸ Fact Sheet at 2; N.H. Dep’t Env’t Servs., Section 305(B) and 303(D) Consolidated Assessment and Listing Methodology (R-WD-20-20) (R-WD-20-20) at 10 (2022), <https://des.nh.gov/sites/g/files/ehbemt341/files/documents/r-wd-20-20.pdf>.

¹⁹ EPA. Off. Of Wastewater Mgmt., NPDES Permit Writers’ Manual, Chapter 8, at 8-2 (2010), https://www3.epa.gov/npdes/pubs/pwm_chapt_08.pdf.

²⁰ 89 Fed. Reg. 32532, 32537 (April 26, 2024).

²¹ 89 Fed. Reg. 8606, 8615 (Feb. 8, 2024)

²² 87 Fed. Reg. 36848, 36849 (June 21, 2022).

²³ 1 89 Fed. Reg. 39,124, 39139 (May 8, 2024).

²⁴ 89 Fed. Reg. 81077 (Oct. 7, 2024).

²⁵ 89 Fed. Reg. 105041 (Dec. 26, 2024).

²⁶ N.H. Dep’t Env’t Servs., *Rulemaking Notice for Env-Wq 1700* (October 2024), accessible at <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/env-wq-1700-rmn.pdf>.

²⁷ Ruyle et al.

²⁸ Ruyle et al.

²⁹ *Id.*

³⁰ Memo from Radhika Fox to Water Division Directors, EPA Region 1–10, *Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority* (April 28, 2022), https://www.epa.gov/system/files/documents/2022-04/npdes_pfas-memo.pdf.

³¹ *Id.* at 2, 3.

³² Ruyle et al.

Response 206

While EPA agrees with the commenter's assertions regarding the usefulness of PFAS data from Industrial Users, EPA finds that annual PFAS monitoring is sufficient for the purposes of this initial permit term. EPA's intention is to ensure that both EPA and the permittees themselves are able to identify actual sources of PFAS throughout the collection system to inform future source reduction efforts. EPA finds that annual PFAS monitoring of the categories of IUs identified in the permit as potential sources is sufficient to make this preliminary identification of actual sources. EPA considers that quarterly monitoring or AOF monitoring of IUs is not needed to make this preliminary identification of actual PFAS sources. Given the large number of IUs in many of these municipalities, EPA also considers that the cost and resources associated with expanding this monitoring requirement would be better directed elsewhere in complying with the permit. However, more frequent monitoring of these IUs may be necessary in the future to track actual PFAS reductions.

Comment 207

EPA Should Include Industrial Source Control Measures in the Final Permit.

EPA should not only strengthen monitoring for PFAS in wastewater from Industrial Users as described above, but it should also include control requirements to reduce contributions of industrial PFAS to the eligible WWTFs.

Federal regulations and New Hampshire state law authorize source reduction measures for PFAS. The federal Industrial Pretreatment Program regulations authorize EPA to "modify a POTW's Permit" and include PFAS reduction requirements when an Industrial User's PFAS contribution "presents a substantial hazard to the functioning of the treatment works, quality of the receiving waters, human health, or the environment[.]" 40 C.F.R. § 403.8(e)(1). PFAS contributions from industrial users likely present a substantial hazard to receiving waters and humans that rely on those waters, as PFAS are toxic, persistent pollutants harmful to aquatic life and humans that the wastewater treatment plant cannot remove. And New Hampshire law broadly allows a wastewater treatment plant to "refuse discharge from an industrial or commercial facility . . . that has reported a level of PFAS in its discharge above the level the wastewater treatment plant determines to be acceptable." RSA 485-A:5-e, III.

EPA should require source reduction measures in the General Permit for all eligible WWTFs and must include source reduction requirements when PFAS will cause pass through, interference, or endangerment under pretreatment regulations. The NPDES permit must "provide for compliance" with the CWA. 40 C.F.R. § 122.4 (a). Thus, EPA must require source reduction measures for all eligible WWTFs if necessary to comply with federal prohibitions against Pass Through or Interference under 40 C.F.R. § 403.5(a)(1). For the seven eligible WWTFs with an Industrial Pretreatment Program, EPA must also establish source reduction measures if the industrial PFAS discharge to the wastewater treatment plant may imminently endanger humans or may endanger the environment. For WWTFs with an Industrial Pretreatment Program, the General Permit must ensure compliance with the pretreatment requirement that a municipality with an IPP must "fully" implement its authority to "immediately and effectively . . . halt or

prevent any discharge of pollutants to the POTW which reasonably appears to present an imminent endangerment to the health or welfare of persons” and “halt or prevent any discharge to the POTW which presents or may present an endangerment to the environment[.]” 40 C.F.R. § 403.8(f)(1)(vi)(B)). EPA should ensure compliance by including source control requirements that are triggered when PFAS is detected at any eligible WWTF and/or in IU wastewater.³³

EPA itself has repeatedly underscored the need for not only PFAS monitoring, but also PFAS reduction, from industrial users. Most recently, in its January 2025 Draft Health Risk Assessment for PFOA and PFOS in Sewage Sludge, EPA highlighted that needed, stating:

Regardless of the management practice to use or dispose of sewage sludge, exposure and risk reduction is possible through pretreatment at industrial facilities discharging to a WWTP. By monitoring sewage sludge for PFOA and PFOS, WWTPs can identify likely discharges of PFOA and PFOS from industrial contributors, require pretreatment, and achieve significant reductions in PFOA and PFOS concentrations in their sewage sludge. In some state programs, WWTPs with industrial sources have achieved a 98 percent reduction in PFOS sewage sludge concentrations through industrial pretreatment initiatives. The EPA recommends that states, Tribes, and WWTPs monitor sewage sludge for PFAS contamination, identify likely industrial discharges of PFAS, **and implement industrial pretreatment requirements, where appropriate.**³⁴

According to EPA, industrial pretreatment requirements “will help reduce downstream PFAS contamination and lower the concentration of PFOA and PFOS in sewage sludge.”³⁵ EPA similarly recommended in its April 2022 memorandum that EPA require best management practices “and pollution prevention to address PFAS discharges to” municipal WWTFs.³⁶ Those best management practices include product elimination or substitution, accidental discharge minimization, and equipment decontamination or replacement.³⁷ The Agency similarly stated in its PFAS Strategic Roadmap that “EPA will seek to proactively use existing NPDES authorities to reduce discharges of PFAS at the source[.]”³⁸ And in July 2024, EPA Region 1’s Water Permits Branch Chief stated: “I do think eventually we will get to the point of including requirements in the permits themselves[.]” and “I think the initial focus will be on the pretreatment part . . . Find out where your biggest contributors are and restrict them first and foremost.”³⁹

Industrial pretreatment requirements are appropriate and necessary for Industrial Users of the 21 WWTFs if PFAS has been detected by the WWTF(s) to date or if PFAS is detected in monitoring required by the final permit. EPA must therefore follow its own recommendations by including PFAS reduction requirements for Industrial Users in the General Permit, triggered by PFAS detections at the WWTF or in IU influent.

³³ See, e.g., EPA Region 8, NPDES Permit No. CO-0020974 at 38-39 (2023), <https://www.epa.gov/system/files/documents/2023-01/co0020974-afa-wwtfnpdes-permit-final-12.20.22.pdf>. (requiring the Air Force Academy to “perform and begin implementing a PFAS source identification and reduction plan” no more than 180 days after detecting PFAS in an effluent sample.)

³⁴ 90 Fed. Reg. 3859, 3863–64 (Jan. 25, 2025) (emphasis added).

³⁵ *Id.* at 3864.

³⁶ Memo from Radhika Fox to Water Division Directors, *Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority* at 3 (April 28, 2022), https://www.epa.gov/system/files/documents/2022-04/npdes_pfas-memo.pdf.

³⁷ *Id.* at 2–4.

³⁸ EPA, PFAS Strategic Roadmap: EPA’s Commitments to Action 2021–2024 at 14 (October 2021), accessible at https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf.

³⁹ Mara Hoplamazian, *PFAS in, PFAS out: How wastewater in Manchester is a pathway for contamination* NHPR, (July 26, 2024), accessible at <https://www.nhpr.org/nh-news/2024-07-26/pfas-in-pfas-out-how-wastewater-in-manchester-is-a-pathway-for-contamination>.

Response 207

See Response 205. Similar to WWTF effluent data, EPA’s approach is to use this permit term to require industrial users to collect PFAS data using Method 1633 in order to identify the significant sources of PFAS within each municipality. Although EPA requires PFAS monitoring from a variety of industrial categories that are likely sources, EPA considers that actual monitoring is necessary to confirm which (if any) industrial users are significant sources of PFAS in each POTW’s collection system. EPA notes that this is consistent with the citation in the comment that sources should be identified before pretreatment requirements are implemented. EPA also notes that PFAS criteria are also being developed which will provide further information regarding the scope of future source reduction requirements. EPA expects that the industrial user data will be used in the future to make informed decisions regarding PFAS reductions from the sources that are identified.

Comment 208

EPA Must Use Recently Finalized and Proposed Water Quality Criteria to Analyze and Determine PFAS Effluent Limitations and Include Such Effluent Limitations in the Final Permit.

If EPA receives PFAS data from eligible WWTFs responsive to the request in section II.A above, EPA must analyze the need for technology-based (TBELs) and water quality-based effluent limitations (WQBELs) for PFAS. EPA has included site-specific effluent limitations for eligible WWTFs, listed in Attachment E, for flow, total residual chlorine, aluminum, ammonia, nutrients (nitrogen and phosphorus), enterococci, fecal coliform, and copper; it should similarly include site-specific limits for PFAS.⁴⁰

TBELs are the “minimum level of control that must be imposed in a” NPDES permit. 40 C.F.R. § 125.3(a). When “EPA-promulgated effluent limitations are inapplicable,” permit writers may establish effluent limitations on a “case-by-case basis[.]”⁴¹ EPA recently released “A ‘How-To’ for NPDES Permit Writers” that provides instructions for permit writers to implement case-by-case TBELs for PFAS in NPDES permits. EPA’s guidance states that other permits have included TBELs for PFAS and provide an example for permit writers:

At least 65 permits with effluent limitations have been issued and provide a model for permitting authorities to evaluate appropriate permit conditions for PFAS in NPDES permits. In the permits where case-by-case TBELs were developed, the effluent data and treatment

technologies identified in these permits will be beneficial for discussions with permittees that may or do discharge⁴².

EPA also recommends that permits include best management practices for PFAS “where it is not feasible to calculate numeric PFAS effluent limitations (40 CFR 122.44(k)(3)) or to supplement numeric PFAS effluent limitations where reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intents of the Clean Water Act (40 CFR 122.44(k)(4)).”⁴³ EPA should apply its guidance to the New Hampshire Medium WWTF General Permit, as wastewater treatment plants are, according to the scientific community, “major per- and polyfluoroalkyl substances (PFAS) sources known to affect drinking water quality.”⁴⁴

In addition to TBELs, EPA should analyze the need for WQBELs and develop necessary WQBELs. A permit may not be issued if its provisions “cannot ensure compliance with the applicable water quality requirements of all affected States.” 40 CFR. § 122.44(a), (d). EPA’s regulations require a WQBEL to control pollutants that “are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.” *Id.* § 122.44(d)(1)(i). To analyze whether a source has reasonable potential, EPA considers whether the “discharge, alone or in combination with other sources . . . could lead to an excursion above an applicable water quality standard.”⁴⁵ To develop this Draft Permit, EPA performed site-specific reasonable potential analyses to set facility-specific effluent limits for non-PFAS pollutants including metals, ammonia, and phosphorous, which are included in Attachment E.⁴⁶

In conducting a reasonable potential analysis and developing site-specific numeric effluent limits for phosphorous, EPA formulated numeric values and effluent limits based on narrative state water quality standards. EPA considered whether each eligible WWTF discharging into freshwater had the reasonable potential to cause or contribute to a violation of the state law requirement that “[c]lass B waters shall contain no phosphorus or nitrogen in such concentrations that would impair any existing or designated uses, unless naturally occurring[,]” and that “[e]xisting discharges containing either phosphorus or nitrogen which encourage cultural eutrophication shall be treated to remove phosphorus or nitrogen to ensure attainment and maintenance of water quality standards.”⁴⁷ See Env-Wq 1703.14(c). To “translat[e] narrative phosphorus criteria into numeric values” and establish WQBELs, EPA considered “nationally recommended criteria and other relevant materials, such as EPA nutrient technical guidance and information published under Section 304(a) of the CWA, peer-reviewed scientific literature and site-specific surveys and data to determine instream targets that are protective of water quality.”⁴⁸

EPA should engage in a similar process for PFAS by using recently finalized and proposed water quality criteria for PFAS to conduct site-specific reasonable potential analyses and establish any necessary WQBELs for PFAS. EPA recently finalized numeric aquatic life water quality criteria and benchmarks for PFAS under CWA section 304(a).⁴⁹ EPA also recently proposed human health criteria for PFAS under CWA section 304(a).⁵⁰ The State of New Hampshire additionally proposed surface water quality criteria for PFAS.⁵¹ Those PFAS criteria serve as indicators for whether the eligible WWTFs’ discharges “may . . . have the reasonable potential to cause, or contribute to”

violations of New Hampshire’s narrative standards for toxics and state standards protecting designated uses for human health and aquatic life. See 40 C.F.R. § 122.44(d)(1)(i). Therefore, EPA should use those final and proposed criteria, in addition to PFAS data from eligible WWTFs and any publicly-available PFAS data for receiving waters, to inform site specific reasonable potential analyses and establish WQBELs for PFAS.

⁴⁰ Fact Sheet at 16–39; see also EPA, Draft New Hampshire Medium Wastewater Treatment Facility Draft General Permit, NHG590000, Attachment E (2024), accessible at https://www3.epa.gov/region1/npdes/nhmwwtfgp/NH_Medium_WWTF_GP_Attachment_E_EligibleWWTFs_SpecificReqs.pdf.

⁴¹ EPA, Water Permit Division, *Implementing Case-by-Case Technology-Based Effluent Limitations in NPDES permits for Pollutants of Emerging Concern A “How-To” for NPDES Permit Writers* (January 2025), accessible at <https://www.epa.gov/system/files/documents/2025-01/case-by-case-tbel-factsheet.pdf>.

⁴² *Id.*

⁴³ EPA, Water Permit Division, *Implementing Case-by-Case Technology-Based Effluent Limitations in NPDES permits for Pollutants of Emerging Concern A “How-To” for NPDES Permit Writers* (January 2025), accessible at <https://www.epa.gov/system/files/documents/2025-01/case-by-case-tbel-factsheet.pdf>.

⁴⁴ Ruyle et al.

⁴⁵ EPA, Off. of Wastewater Mgmt., NPDES Permit Writers’ Manual (EPA-833-K-10-001) at 6-23 (2010), https://www3.epa.gov/npdes/pubs/pwm_2010.pdf.

⁴⁶ Fact Sheet at 22–25 (aluminum), 25–26 (ammonia), 31–35 (phosphorus).

⁴⁷ *Id.* at 28.

⁴⁸ *Id.*; see also 40 CFR § 122.44(d)(1)(vi)(A), (B).

⁴⁹ 89 Fed. Reg. 81077 (Oct. 7, 2024).

⁵⁰ 89 Fed. Reg. 105041 (Dec. 26, 2024).

⁵¹ N.H. Dep’t Env’t Servs., *Rulemaking Notice for Env-Wq 1700* (October 2024), accessible at <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/env-wq-1700-rmn.pdf>.

Response 208

See Response 205.

Comment 209

EPA Must Reinstate Narrative Permit Limitations

The lack of narrative limitations in the Draft General Permit indicates a preemptive response to *San Francisco v. EPA*, a case that the Supreme Court of the United States has heard but not decided. *San Francisco v. EPA*, 75 F.4th 1074, 1093 (9th Cir. 2023), *cert. granted*, S. Ct. No. 23-753 (May 28, 2024). EPA must include narrative provisions in the final permit, as they are not only authorized under Clean Water Act section 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C) but they also provide an essential backstop for protecting water quality and ensuring that permitted discharges do not violate water quality standards.

The Clean Water Act prohibits the discharge of a pollutant from a point source into waters of the United States unless in accordance with a NPDES permit or another specified provision. 33 U.S.C. § 1311(a). Federal regulations promulgated under the Clean Water Act prohibit EPA from issuing a NPDES permit that “cannot ensure compliance with the applicable water quality requirements of all affected States,” 40 CFR § 122.4(d), and that cannot achieve water quality standards, including narrative water quality criteria. 40 CFR § 122.44(d). By failing to include narrative permit limitations in the Draft Permit, EPA omitted provisions that “ensure compliance” with

New Hampshire's water quality standards, including narrative standards. Finalizing the permit without including those narrative permit provisions would thus violate the Clean Water Act and its implementing rules.

Without narrative provisions in Part II.A, the permit's effluent limitations cover a limited range of pollutants as compared to state narrative water quality criteria, and the permit lacks an enforcement mechanism to address violative discharges. For example, the 2011 General Permit for Publicly Owned Treatment Works contained a narrative provision that stated: "The discharge shall not cause a violation of the water quality standards of the receiving water."⁵² Current individual permits for eligible WWTs, including Dover and Durham, contain an identical provision.⁵³ Omitting a similar provision from this General Permit would narrow EPA's ability to ensure compliance with New Hampshire's water quality standards and criteria through the permit.

Similarly, the Draft Permit fails to incorporate a narrative limit protecting New Hampshire's narrative criteria for toxic pollutants. The current individual permits for Dover and Durham include a requirement that: "[t]he permittee shall not discharge into the receiving water any pollutant or combination of pollutants in toxic amounts."⁵⁴ Instead of including a similar narrative provision, the Draft General Permit includes Whole Effluent Toxicity requirements and Annual Chemical Monitoring for specified pollutants to "assure that the Facility does not discharge combinations of pollutants into the receiving water in amounts that would be toxic to aquatic life or human health" in violation of state narrative criteria.⁵⁵ However, EPA implicitly recognized that the new monitoring provisions do not cover all pollutants encapsulated by the state narrative water quality standards by acknowledging that Whole Effluent Toxicity requirements may not capture "other sources of toxic effects (including to human health)" and that the Chemical Monitoring requirement covers "many" but not all "common toxic pollutants."⁵⁶

The Annual Chemical Monitoring covers only pollutants listed in Attachment I, which is the same list of pollutants specified on permit application forms.⁵⁷ Attachment I does not include PFAS or AOF – toxic pollutants with the potential to violate New Hampshire's narrative water quality criteria. Narrative permit provisions prohibiting the WWTs from causing a state water quality standard or incorporating narrative toxics standards, on the other hand, cover pollutants that the permittee did not list on its application but that nonetheless may violate water quality standards. *See Ohio Valley Env't Coal., Inc. v. Marfork Coal Co.*, 966 F. Supp. 2d 667, 685 (S.D.W. Va. 2013) (permit provisions incorporating state water quality standards function "[a]s a backstop" that "protects water quality standards that [the permitting authority] did not anticipate would be threatened based on the discharge levels reported in a permit application.").

The agency should include the monitoring provisions listed above in addition to, not in lieu of, narrative limitations. It should also add PFAS and AOF to Attachment I, as wastewater treatment plants often contain PFAS in influent and effluent and those pollutants have the potential to violate New Hampshire's narrative water quality standard for toxics.

⁵² EPA, Publicly Owned Treatment Works General Permit POTW GP MAG580000, GP NHG580000 at 49 (2011), accessible at <https://www3.epa.gov/region1/npdes/permits/potw/POTWGP-2011.pdf>.

⁵³ See, e.g., EPA, NPDES Permit No. NH0101311—City of Dover at 4 (2006), accessible at <https://www3.epa.gov/region1/npdes/permits/2006/finalnh0101311permit.pdf>; U.S. EPA, NPDES Permit No. NH 0100455—Town of Durham at 5 (1999), accessible at <https://www3.epa.gov/region1/npdes/permits/finalnh0100455permit.pdf>;

⁵⁴ See, e.g., EPA, NPDES Permit No. NH0101311—City of Dover at 5 (2006), accessible at <https://www3.epa.gov/region1/npdes/permits/2006/finalnh0101311permit.pdf>; U.S. EPA, NPDES Permit No. NH 0100455—Town of Durham at 7 (1999), accessible at <https://www3.epa.gov/region1/npdes/permits/finalnh0100455permit.pdf>;

⁵⁵ Fact Sheet at 36.

⁵⁶ *Id.* at 38–9.

⁵⁷ *Id.* at 39.

Response 209

See Responses 5 and 52.

As a result of the Supreme Court decision in *City and County of San Francisco v. EPA*, EPA is unable to include the narrative permit limitations described in this comment. However, EPA has included many replacement provisions (as described in pages 6, 8-9 and 36-41 of the Fact Sheet) in lieu of these requirements. EPA finds that this alternative permitting approach ensures the permit remains protective of state water quality standards.

EPA is able to re-open or reissue the General Permit to incorporate any more stringent effluent limitations necessary based on the results of the enhanced monitoring requirements. To make this more clear, EPA has revised the second sentence in Part II.B.1 (Unauthorized Discharges) to indicate the following:

“For any pollutant without an effluent limitation in this permit, any pollutant loading greater than the proposed discharge (the “proposed discharge” is based on the chemical-specific data and the facility’s design flow as described in the permit application, or any other information provided to EPA during the permitting process) must be reevaluated, and the permit must be modified or reissued if the need for any new effluent limitations is identified.”

Regarding enforceability, EPA notes that the narrative limitations described in the comment generally required additional data to support an enforcement action. Under the new permitting approach, EPA expects that much of this additional data will be readily available and that any effluent limitations established in the future based on this data will be enforceable.

Comment 210

EPA Should Retain Adaptation Planning Measures in the Final Permit.

CLF supports the Adaptation Planning Measures contained in the Draft Permit. There is widespread consensus that climate change has already caused dramatic changes in the frequency and severity of precipitation and major storms, has caused and contributed to sea level rise, and has dramatically shifted air, water, and surface temperatures. Increased impacts in the near and long-term are already assured as a result of emissions to-date and will be severely exacerbated by continued emissions of greenhouse gases. It is beyond any reasonable

dispute that climate disruption poses severe risks to riverine and coastal infrastructure, water quality, and human health.

EPA has recognized that in the Northeast specifically, climate change places strains on “aging infrastructure” and creates risks for surface waters and human health.⁵⁸ The agency specifically acknowledged that “[m]illions of Northeastern residents” living in coastal and river floodplain areas “are potentially more vulnerable” to climate change-induced “[s]ea level rise, heavy precipitation, and storm surge” and resulting impacts on infrastructure, surface waters, and human health.⁵⁹

The Clean Water Act and federal regulations authorize EPA to require the Adaptation Planning measures in Draft Permit Part II.C. Section 402 of the Clean Water Act authorizes EPA to include permit conditions that the Agency “determines are necessary to carry out the provisions of” the statute. 33 U.S.C. § 1342(a). Federal regulations state that the EPA Regional Administrator “shall establish conditions, as required on a case-by-case basis, to provide for and ensure compliance with all applicable requirements of” the Clean Water Act and its implementing rules. 40 C.F.R. § 122.4(a).⁶⁰

Wastewater treatment plants are particularly susceptible to non-speculative climate change impacts within the purview of the Clean Water Act, including combined sewer overflow events due to increased precipitation causing discharges of raw sewage from point source outfalls into surface waters that serve as recreation sites or drinking water sources.⁶¹

⁵⁸ EPA, *Climate Impacts in the Northeast* (last updated January 19, 2017), accessible at <https://19january2017snapshot.epa.gov/climateimpacts/climate-impacts-northeast.html#Reference%201>.

⁵⁹ *Id.*

⁶⁰ See also Off. of Wastewater Mgmt., Memo from Christopher Kloss to Regional Water Division Directors, Regions 1-10, *Incorporating Resiliency Considerations in NPDES Permitting* (Dec. 13, 2024), accessible at <https://www.epa.gov/system/files/documents/2024-12/resilience-npdes-permitting.pdf>.

⁶¹ EPA, *Climate Impacts in the Northeast* (last updated January 19, 2017), accessible at <https://19january2017snapshot.epa.gov/climateimpacts/climate-impacts-northeast.html#Reference%201>.

Response 210

See Response 2.

Comment 211

EPA has an important opportunity to proactively address PFAS pollution at 21 WWTFs that discharge into New Hampshire’s surface water and, in doing so, to ensure compliance with the Clean Water Act and protect the health of communities throughout New Hampshire. We urge EPA to seize this opportunity by requiring eligible WWTFs to submit any existing PFAS data, by strengthening PFAS monitoring provisions, by developing and including PFAS control requirements, including narrative limits, and by retaining the Adaptation Planning measures contained in the Draft Permit.

Response 211

See Responses 206 through 211 above.

Y. Comments from Aaron Costa and Christopher Perkins, New Hampshire Water Pollution Control Association, on February 12, 2025.

We are writing on behalf of the New Hampshire Water Pollution Control Association (NHWPCA). The NHWPCA has the following stated purpose and represents hundreds of wastewater professionals from across the state:

1. The acquisition and dissemination of knowledge concerning the nature, collection, treatment and disposal of water-carried wastes and the design and operation of wastewater systems.
2. The promotion of good public relations and sound legislation relating to wastewater control systems.
3. The advancement of the status of personnel engaged in the control of water pollution.
4. The improvement of wastewater collection and treatment and thereby the quality of New Hampshire's water resources.

In support of this mission, the NHWPCA Permit Committee works to identify ways and means to aid membership relative to new or modified NPDES permit-related issues, trends, water quality standards, and/or associated rulemaking. This may include training or articles on permit-related issues and water quality standards, comments prepared related to specific draft permits, and other actions that advance the interests of membership. This committee assisted with the development of this correspondence.

Regarding Draft NPDES Permit No. NHGP590000 (the draft permit), we formally request that EPA consider the following comments:

Comment 212

General:

Municipal NHWPCA members have collectively made significant capital investments in their wastewater treatment facilities over the past two decades. These investments include substantial upgrades to treatment systems, construction of new facilities, and implementation of other upgrades and advanced technologies to improve operational efficiency and environmental compliance. Many communities have also undertaken major infrastructure projects, such as sewer separation, roadway reconstruction, stormwater management initiatives, and compliance with other NPDES permits (e.g., MS4 and the Great Bay Total Nitrogen General Permit).

In reviewing the draft permit, municipalities were struck by the substantial number of new compliance provisions, the increased testing frequency for both existing and newly introduced parameters, and the number of time-bound deliverables for programs and reports. These requirements present significant challenges, especially for communities regulated by this permit.

Adding to this challenge is the national workforce shortage, which has led to widespread reductions in the availability of qualified wastewater treatment facility (WWTF) operations staff. Many member communities are facing significant staff vacancy rates, making it difficult to meet existing operational demands, let alone the increased compliance requirements introduced by the draft permit. These requirements, including additional sampling, reporting, and

programmatic deliverables, will necessitate hiring additional management and operations staff during an already constrained labor market.

Several member municipalities have also expressed concerns about the feasibility and costs associated with compliance within the prescribed timeframes. In many cases, the increased demands for testing, reporting, and program implementation will result in higher administrative and operational costs. To ensure successful compliance while minimizing undue financial and administrative burden, we recommend that the EPA consider providing additional flexibility in the draft permit. Specifically:

1. Delayed Implementation for Select Parameters. Certain compliance requirements, such as new monitoring or reporting parameters, could be phased in over a longer period than currently proposed. Consideration should be given to ongoing project and/or compliance with other NPDES permits that also have compliance timeframes.
2. Extended Deadlines for Reports and Programs. Time-bound deliverables for programs and reports could be adjusted to account for the staffing and financial constraints many municipalities are currently facing.
3. Recognition of Workforce Challenges. The draft permit should acknowledge the operational realities of staffing shortages and allow for alternative compliance strategies where appropriate.

When considered together, these adjustments would provide member municipalities the time and resources needed to effectively comply with the permit without compromising environmental outcomes. NHWPCA appreciates the EPA's ongoing efforts to protect water quality and looks forward to working collaboratively to ensure that the permit's goals are met in a realistic and achievable manner.

Response 212

See Responses 1 and 114.

Also see list of changes to the Final General Permit at the beginning of this document.

Comment 213

Aesthetics – New Monitoring Requirement

EPA is requiring in Part II.A that facilities conduct, monthly, a “visual inspection of the receiving water in the vicinity of the outfall and report any changes that may be caused by the discharge” related to odor, color, turbidity, floating materials, settleable solids, and films/sheens. EPA is also requiring facilities to report complaints of taste/odor and remedial actions to address complaints. Reporting for inspections and complaints would occur at the end of each calendar year.

Through this draft permit requirement, the EPA has placed an added, qualitative policing requirement on the WWTFs after discharge. Facility operators closely monitor effluent water quality for the parameters listed in this requirement. However, facilities have no control of receiving water quality, and requiring facility staff the added responsibility of policing water

quality in the vicinity of the discharge would open facilities up to litigation to changes in water quality that are beyond the WWTF's control. In addition, because visual observations are qualitative and EPA cites no standard protocols or methods for this monitoring, inspection quality will vary by person and site.

We recommend EPA revised the draft permit as follows:

1. Remove Aesthetic Monitoring requirements in their entirety. This would be consistent with the Region 1 Final Medium Wastewater Treatment Facilities General Permit for Massachusetts, Permit Number MAGP590000. Such a revision would be also consistent with the intent of section E of the New Hampshire State Certification which, in accordance with 40 CFR 124.53, states that the reduction in aesthetic monitoring would not make the draft permit less stringent and would not violate State law and New Hampshire water quality standards because the requirement does not address effluent water quality, but only the receiving water quality which the permittee has no direct control beyond the specified discharge.
2. In lieu of complete removal, change the Frequency of Visual Inspection of the receiving water to coincide with WET testing.
3. Remove this requirement in its entirety for the Town of Seabrook.
4. Remove the Additional WET Testing required by the observance of an "oily sheen" in Part II.H.5.a. An observed oily sheen on the receiving water is not relevant to the effluent water quality. Any hydrocarbon in the effluent is already measured in other parameters. If an oily sheen is observed and there is a violation of any WET limit, one accelerated re-test should be conducted using an alternative dilution water. If it is found that the receiving water is the cause of the violation the permittee shall continue to use the alternative dilution water for subsequent WET testing. Otherwise, further investigation of the effluent is warranted.

Response 213

See Response 54.

Regarding Part II.H.5.a, see Response 16.

Regarding the request to change the frequency to coincide with WET tests, EPA finds that monthly visual inspections are necessary to ensure consistent compliance with water quality standards throughout the year. EPA notes that on months with a WET test, the Permittee may conduct the visual inspections at the same time as taking the ambient WET sample in those months.

Comment 214

pH

The draft permit proposes a limit on pH in the range between 6.5 – 8.0. This appears to be based solely on the New Hampshire water quality standards. It is acknowledged that the provision in Sections II.H.1 and II.K.5 in the draft permit apply to modify the allowance effluent pH range.

We recommend that the lower limit of the pH range be kept at 6.5 but that the upper limit of the pH range be changed to 9.0 to be consistent with the provisions of the Clean Water Act and 40 CFR § 133.102(c) for freshwater discharge.

In terms of human health, higher pH water does not pose a direct human health risk, whereas the effects of low pH on the aquatic environment are more pronounced and destructive. Unpolluted deposition (rain), in balance with atmospheric carbon dioxide, typically has a pH of 5.6, however, the data shows that in most areas the pH of rain is lower than this. One of the most significant problems related to low pH conditions is associated with acid precipitation/deposition in the northeast and Canada. The Northeast region is subject to acidic rain due to the impacts from power and industrial plants in the Midwest. The main constituents in acid rain are sulfur dioxide and nitrogen oxides. Power stations and industrial plants (such as mining and smelting of sulfur ores) combined with the burning of fossil fuels emit the largest quantities of sulfur and nitrogen oxides along with other acidic compounds. These compounds mix with water vapor at an elevated rate to cause acid deposition with a pH of 4.7, which is 10 or more times the acidity of naturally occurring rainfall deposition.

Acid rain can have a significant deleterious and demonstrable impact on freshwater bodies. The effects of acid deposition are much greater in water bodies with low buffering capacity. Additionally, in watershed areas where the bedrock outcrops are at or near the surface, acidic deposition receives little buffering. This is because the bedrock is often igneous rock such as granite, or metamorphic rock such as gneiss. They resist the solvent properties of the water runoff, which is usually soft, and they do little to buffer the acidity.

Low pH values can also lead to the release of toxic metals from sediments. Much of the damage to aquatic life in sensitive areas with little buffering capacity is the result of toxic shock from the release of highly acidic water and leached metal ions during snow melts or after very heavy rainfall events. The spring thaw yields an acid surge or “acid shock” to the surrounding soils and receiving water bodies. The pH often can be as low as 3-3.5, and the surge of acid runoff occurs at the same time as the reproductive cycle of many fish and the growth of food species. The acid conditions are toxic to eggs and fry and also leach heavy metals such as lead. Metals are typically more toxic at lower pH levels because they are more soluble at the lower pH levels. Decomposing plants also add acidity to the soil and adjacent surface waters by decreasing carbonic acid levels. One additional point to note, increasing the temperature of fresh waters causes a decrease in the pH so the effects of climate change should also be taken into consideration.

In view of the problem of acid rain deposition in the Northeast and climate change, allowing the discharge of treated effluent with a higher pH range (upper limit of 9.0) would provide a significant environmental benefit by helping to offset the deleterious effects of acid rain and climate change. Note further that the EPA Redbook recommends a pH range of 6.5 - 9.0 for freshwater systems. We recommend that this be the specified effluent pH range in the final permit.

Response 214

EPA agrees with this comment that low pH (due to acid rain) is particularly harmful to aquatic life and that discharges with higher pH may provide an environmental benefit to offset low pH in certain receiving waters. However, EPA must establish permits that are consistent with NH water quality standards which prohibits discharges above 8.0 S.U. Therefore, the pH limits have not been changed at this time, but (as noted in the comment) each discharger is able to conduct a pH study to modify the pH range once the permit becomes effective.

See Response 9 for more details.

Comment 215**Pollutant Scan**

The draft permit requires WWTFs to perform an annual Pollutant Scan of more than 100 pollutants listed in Attachment I for effluent and ambient samples throughout the permit period. It also requires in Part II.I.7. that WWTFs “Perform three pollutant scans for the pollutants listed in Attachment I, using a representative composite sample once per quarter in the final three full calendar quarters of the 5-year permit term.” Assuming Part II.I refers to effluent samples, this results in a minimum of 7 effluent pollutant scans and 5 ambient pollutant scans (12 total samples) during the 5-year permit cycle. The analytes defined within a pollutant scan are listed in Attachment I and typically costs in excess of greater than \$1,000 for all pollutants.

We recommend that EPA revise the pollutant scan monitoring requirements in the draft permit to align with the Region 1 Final Medium Wastewater Treatment Facilities General Permit for Massachusetts, Permit Number MAGP590000. Specifically, we propose the following:

1. Eliminate Annual Pollutant Scan Requirements. Remove the requirement for annual pollutant scans of effluent and ambient samples.
2. Reduce Pollutant Scans to Three Per Permit Term. Revise Part II.I to require three effluent pollutant scans, conducted once per quarter in the final three full calendar quarters of the 5-year permit term.
3. Remove Ambient Pollutant Scan Requirement. WWTFs are not responsible for ambient water quality; accordingly, remove requirements to conduct ambient pollutant scans.

These revisions would eliminate expensive monitoring costs, align with a directly comparable and recently issued general permit, and enable WWTF management to apply these cost savings to other compliance and operational concerns.

Response 215

See Responses 10, 52 and 92.

Comment 216**Benthic Survey**

The draft permit requires that a number of potential permittees perform a benthic survey during the permit period based on the dilution factor of the WWTF. Part II.H.6. includes language and

parameters of the survey. It is understood that New Hampshire has proposed changes to these requirements to link the requirement to a known and understood negative impact caused by the discharge. However, this introduces several concerns. In response to EPA and NHDES, we identify the following issues:

1. Unclear Triggers for Survey Requirement. The conditions that would constitute a “known or suspected detrimental impact” on downstream benthic communities are not defined.
2. Lack of Notification and Timeline Clarity. The draft permit does not specify how WWTFs would be notified of the requirement or how much time they would have to complete a survey.
3. Unspecified Link Between Effluent and Survey Triggers. It is unclear whether there is a correlation between effluent parameters such as Total Suspended Solids and the need for a benthic survey. This uncertainty extends to the trigger criteria.
4. High Cost and Financial Burden. Benthic surveys are estimated to cost \$20-40,000 or more, which represents a significant funding challenge for affected communities. There is no indication of whether EPA or the state would provide funding assistance or if the cost would be fully borne by the community.

We recommend that EPA work with NHDES and consider how to revise the draft permit to account for the following:

1. Define specific effluent-based criteria that would trigger a survey.
2. Clarify notification procedures and required timelines for completion.
3. Evaluate water quality standards that best correlate to benthic community health.
4. Consider incorporating clear, codified survey triggers into New Hampshire water quality regulations.
5. Identify potential funding support for communities required to conduct surveys.

Response 216

See Response 101.

Comment 217

Adaptation Planning

NHWPCA has commented on multiple previous draft permits that included the requirements found in Part II.C.1. These comments have addressed the significant burden these requirements apply to permittees and co-permittees due to its comprehensive scope, rigid timelines, and lack of financial support. These concerns remain relevant and applicable as a response to the rationale provided in Appendix D of the draft permit Fact Sheet.

It is important to also focus on the details of Component 3: Implementation and Maintenance Schedule found in Part II.C.1.a. Given the requirements and completeness of a permittee’s Adaptation Plan and the nature of procuring funding at the local municipal level, the 48-month timeline is too restrictive. Competing needs of a WWTF and collection and conveyance systems, as well as those at the municipal level, make it difficult to achieve strict compliance with such mandates and prevent officials from designating funds in a manner that best protects all constituents through investment in infrastructure systems, social service programs, public safety, etc.

We therefore recommend that Part II.C.1.a. language be modified to allow permittees to be flexible in implementing and maintaining their adaptive measures so they may balance all infrastructure investments.

Response 217

See Response 2.

Comment 218

PFAS and Adsorbable Organic Fluorine Monitoring

Part II.A. and Footnotes 14 and 15 of the draft permit include requirements for testing PFAS and Adsorbable Organic Fluorine (AOF); however, these testing methods have not been promulgated at the federal level. The EPA rulemaking process indicates that final action for these methods is still "To Be Determined." Given this status, PFAS and AOF testing does not at present align with EPA guidance. Additionally, the proposed monitoring requirements impose significant financial and operational burdens on affected WWTFs, particularly smaller facilities that are not included in EPA's ongoing national study.

Accordingly, see the following recommended changes to the draft permit:

1. Revise Footnote 2. Remove references to PFAS and AOF testing from this footnote until these methods are officially promulgated under 40 CFR Part 136. Currently, no finalized Clean Water Act (CWA) methods exist for these parameters and removal aligns with the still-pending status these methods.
2. Remove Footnotes 14 and 15. These footnotes require testing using Methods 1633 and 1621, despite recognized limitations. Method 1621 is a speculative test with known interferences, including non-PFAS compounds.
3. Align with National EPA Study Parameters. The EPA study on wastewater influent PFAS is limited to WWTFs with a capacity of 10 MGD or larger and serving populations of 50,000 or more. The draft permit extends these testing requirements to smaller facilities, many of which are eligible for coverage under the draft permit but do not meet the criteria of the national study. This requirement should be removed to align with EPA's intended phased approach.
4. Delay Implementation Until Lab Capacity Increases. The EPA has acknowledged the limited availability of certified laboratories for PFAS and AOF testing. The national study staggers sampling to prevent overwhelming labs, yet Region 1's draft permit imposes additional quarterly testing on smaller WWTPs. This added burden is not logistically feasible and should be postponed until an independent analysis indicates that sufficient laboratory capacity has become readily available to all permittees subject to these requirements.

Response 218

See Responses 11 (methods and footnotes), 12 (national study), and 50 (lab availability).

Comment 219

Aluminum Limits and Application of New Criteria

The draft permit includes an effluent total recoverable aluminum average monthly discharge limit of 87 mg/l (ppb) for the majority of eligible WWTFs subject to this water-quality based effluent limit (WQBEL). This is equivalent to the freshwater chronic criteria established in New Hampshire Code of Administrative Rules Env-WQ 1703.21 for acid-soluble aluminum of 87 ppb.

EPA issued the 2018 Final Aquatic Life Criteria for Aluminum in Freshwater, replacing the 1988 criteria guidance. This new guidance includes both acute and chronic values, which vary based on site-specific factors such as pH, total hardness, and dissolved organic carbon (DOC). The Aluminum Criteria Calculator developed by EPA includes both acute and chronic datasets and applies multiple linear regression models to account for the bioavailability of aluminum for a given water chemistry.

Example calculations provided by EPA for a range of pH, hardness, and DOC values typical to New Hampshire freshwater systems show the current acid-soluble aluminum criteria is generally more stringent than the current chronic criterion. In August 2024, NHDES issued draft changes to Env-WQ 1703.22(s) that allows for the determination of total aluminum based on site-specific pH, total hardness, and DOC using EPA procedures, with a defined approach following its Draft Aluminum Criteria Implementation in NPDES Permitting.

In addition, Massachusetts DEP used this approach to calculate aluminum criteria for 15 river basins and coastal drainages in Massachusetts, several of which derive or pass through New Hampshire, and in all cases, the chronic criteria calculated using the Aluminum Criteria Calculator were significantly higher than New Hampshire's current criteria of 87 ppb.

Accordingly, we recommend the permit language be modified to allow eligible WWTFs that may have a WQBEL for Aluminum to calculate site-specific aluminum criteria specifically applicable to the WWTF's current operational processes. Although NHDES has not finalized Env-WQ 1703.22 modifications, and EPA has not yet approved New Hampshire's draft water quality criteria for Aluminum, this NPDES permit should be revised to reflect the scientifically based new criteria. Anti-backsliding regulations should not prevent the implementation of a new aluminum limit because it will be based on new scientific information developed by the EPA.

In summary, the above recommended draft permit changes prevent undue operational, compliance, and financial strains on municipalities, aligns with scientifically-based analysis and guidance, applies reasonableness to all permit requirements, and ensures that monitoring requirements are based on sound methodologies.

We trust you recognize the dedication of our membership and the seriousness with which WWTF operations and management staff approach their responsibilities, and appreciate in advance your consideration of the above. These comments have been submitted via email in a timely manner, in advance of the February 12, 2025, close of the comment period.

Response 219

See response 48.

Z. Comments from Adam Dumville, Anheuser-Busch, on February 12, 2025.

Comment 220

Factual Background

AB has operated its brewery, located at 221 Daniel Webster Highway in Merrimack, New Hampshire, since 1970. The brewery has historically produced between 6,000 and nearly 10,000 barrels of beer per day on average and employs approximately 250 people, many of whom reside in the Town of Merrimack. As part of its brewing process, AB treats and discharges wastewater to the Town's WWTF in compliance with local, State, and federal pretreatment standards. AB's wastewater discharge is regulated under an Industrial User Discharge Permit ("IDP") issued by the Town.

The Draft Permit reflects significant and unwarranted reductions in EPA's effluent limitations for the brewery's wastewater discharge to the WWTF. Specifically, in 2014, the EPA authorized the brewery to discharge BOD5 up to 1,726 lb/day and an average monthly discharge of 691 lb/day. The Draft Permit reduces the brewery's effluent limitations down to 1,031 lb/day and an average monthly discharge of 413 lb/day.

Regarding TSS, in 2014, EPA authorized the brewery to discharge TSS up to 2,392 lb/day and an average monthly discharge of 962 lb/day. The Draft Permit reduces the brewery's effluent limitations down to 1,429 lb/day and an average monthly discharge of 575 lb/day.

The newly proposed EPA limits, however, are based on an erroneous average production level of 5,711 barrels per day from 2019 through 2023, which is lower than the 9,559 barrels per day used in prior permits. The Draft Permit overlooked and ignored AB's brewing capacity, which is significantly higher than 5,711 barrels per day at 9,589 barrels per day. Moreover, EPA's proposed limits are in stark contrast to the TSS and BOD limits that the Town has consistently approved overtime in AB's IDP. *See infra*. § III.C.

AB respectfully requests that EPA revert to AB's historical brewing capacity and keep the same discharge limits from the Town's 2014 NPDES Permit. In addition, AB submits comments on the Draft Permit's PFAS sampling, benthic surveys, and visual inspections, among others.

Response 220

See Response 145.

As noted in Response 45, EPA reiterates that the BOD and TSS allocations for AB's contribution are NOT directly applicable to AB. Rather, the Town of Merrimack has discretion to allocate larger amounts of its excess discharge capacity for BOD and TSS to AB (levels that may even be much higher than the current allocation described in this comment).

Comment 221

Standard of Review

Under the Administrative Procedure Act (“APA”), an agency may not take actions, issue findings, or make conclusions that are:

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; (B) contrary to constitutional right, power privilege, or immunity; (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; (D) without observance of procedure required by law; (E) unsupported by substantial evidence in a case subject to sections 556 and 557 of [the APA] or otherwise reviewed on the record of an agency hearing provided by statute; or (F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

5 U.S.C. § 706(2). An agency action is considered arbitrary and capricious when that agency relied on factors that Congress did not intend or “entirely failed to consider an important aspect of the problem,” or explained its decision in such a way that is contradicted by the actual evidence or is “so implausible that it could not be ascribed to a difference in view or the product of agency experience.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). In addition, “an error of law also constitutes an abuse of discretion.” *Yepes-Prado v. U.S. I.N.S.*, 10 F.3d 1363, 1366 (9th Cir. 1993).

The Agency must not issue a NPDES Permit containing permit conditions that are plainly contrary to executive orders and directives issued by the new administration.

On January 20, 2025, a number of Executive Orders were issued, many of which rescinded and/or suspended environmental regulatory programs and energy policies that President Biden’s administration had put in place. Accordingly, unless and until the new administration reviews the Draft Permit, the conditions therein, and the comments submitted, the Agency should only take actions that are consistent with new administration’s agenda. Moreover, to the extent any rule, regulation, or policy changes the authority for any conditions or requirements in this permit, AB objects to them and reserves the right to object and challenge such condition(s).

Response 221

The comment does not cite to any specific new rule, regulation, or policy change which would dictate a change in permitting approach. As is always the case, EPA Region 1 closely coordinates with EPA’s Office of Water and Office of General Counsel at EPA Headquarters as part of Region 1’s delegated authority to issue NPDES permits in New Hampshire.

Comment 222

The lowering of TSS and BOD effluent limitations from the Brewery to the WWTF is arbitrary and capricious because it unreasonably and unlawfully restricts the brewery’s future operational capacity.

The Draft Permit for the Town of Merrimack imposes more stringent TSS and BOD effluent limitations without any factual or legal basis to do so. Over the course of the past 20 years, the EPA has systematically imposed conditions on AB that restrict future operations at the brewery.¹

Further reductions are arbitrary and capricious because they would unreasonably restrict AB's future operational capacity without any adequate factual basis to justify the need for more stringent limitations.

The anti-backsliding provisions of the CWA, see 33 U.S.C. § 1342(o), prohibit the renewal, reissuance or modification of a permit that contains effluent limitations, permit conditions, or standards less stringent than those established in the previous permit. Therefore, if the EPA were to finalize and issue this permit, future permits would be required by law to have equally stringent or more stringent effluent limitations—permanently restricting the brewery's operational flexibility and its ability to increase production to pre-2019 levels. This result is unreasonable and unlawful under the APA for three reasons.

First, EPA's reliance on AB's current production levels wrongly assumes that the production levels we see today will reflect long-term production levels. AB's capacity to brew beer in the future, however, cannot be arbitrarily restricted based solely on historical downward production trends. In its fact sheet, EPA explains that it based the development of these new and more stringent effluent limits solely on AB's average brewery production data from between 2019 and 2023.² EPA's reliance on the brewery's reduced production levels over this timeframe does not reflect AB's design capacity and full potential to brew beer at higher volumes in the future.

AB recognizes that its production in Merrimack has slowed down since 2008. In the Town's 2007 NPDES permit, average brewery production was reported at 9,672 barrels/day. In 2012, AB's production reduced to 9,559 barrels/day. Now, EPA reports that from 2019 through 2024, the average brewery production was 5,711 barrels/day. EPA uses this 5,711 number to calculate BOD5 and TSS limits. By using this number, however, without considering AB's prior brewing history and/or the brewery's design capacity, the EPA acted arbitrarily and capriciously. If AB is pigeonholed to 5,711 barrels/day for all of time, such limit would unreasonably deprive AB of its capacity to brew beer, in violation of the State and federal Constitutions.

Indeed, as discussed *supra* § I, the Draft Permit reduces AB's allowable discharge of BOD5 and TSS by 40% in each category (lb/day maximum and lb/day monthly average) solely based on current production of the brewery. The EPA relies, in part, on Draft Effluent Guidelines for Breweries to establish BOD and TSS daily and monthly average limits. However, EPA's Draft Effluent Guidelines are just that—guidance, not a rule. The draft guidelines—which assume brewery effluent for BOD and TSS at concentrations of 54 mg/L and 75 mg/L respectively³—do not align with real world experience. Best management practices for breweries acknowledge that BOD and TSS values are significantly higher in brewery wastewater than from domestic sewage.

In fact, AB's current IDP issued by the Town authorizes discharge limits as follows:

Table 3 – Discharge Permit Limits

Parameter	Permit Limit			
	Monthly Average		Daily Max	
Flow	1.4	mgd	2.0	mgd
BOD	7,500	lbs/day	10,000	lbs/day
TSS	10,000	lbs/day	18,000	lbs/day

IDP at § 1.3, Table 3. These effluent limits are in line with typical brewery discharges.

For example, NHDES notes that “[b]eer and brewery wastewater have VERY high BOD on the order of 60,000 mg/L.”⁴ Rhode Island notes that breweries have high BOD from 5,000 mg/L to over 20,000 mg/L and TSS values ranging from 3,000 to over 15,000 mg/L.⁵ These concentrations are *significantly* higher than EPA’s draft effluent guidelines. If EPA’s proposed limits for AB are set in stone, the Agency will have failed to consider typical brewery wastewater and AB will not be able to increase its brewing capacity in the future, which EPA acknowledges. See NPDES Permit No. NH0100161, Fact Sheet at 7, March 20, 2014 (citing 40 C.F.R. § 122.44(l)(2)(ii) for the proposition that EPA is precluded from “relaxing” BOD and TSS limits in accordance with anti-backsliding regulations).

Second, EPA provides no factual basis in its Fact Sheet for why the effluent limitations included in its 2014 NPDES permit were insufficient in relation to BOD and TSS. EPA does not demonstrate that more stringent limitations are necessary to protect the receiving water. The EPA’s NPDES Permit Writer’s Manual makes clear that more stringent effluent limits should only be imposed “if necessary” to meet Clean Water Act standards.⁶ The receiving water is no longer impaired for oxygen. The existing effluent limitations are more than sufficient to protect water quality standards. Accordingly, more stringent limitations are unnecessary because EPA has not demonstrated that the current effluent limitations are inadequate or that they fail to protect the receiving waters of the Merrimack River.

Third, the brewery’s compliance with its permits issued under the Town of Merrimack’s local pretreatment program demonstrates that the imposition of more stringent effluent limits is unnecessary. AB’s operations comply with current pretreatment requirements set by the Town and compliance with such provisions is sufficient to protect water quality and meet regulatory requirements under the Clean Water Act. There is no factual basis for EPA to permanently restrict AB’s production.

EPA has failed to demonstrate that the current effluent limitations are inadequate or that the receiving waters are at risk of impairment under the existing standards. Furthermore, AB’s full compliance with the Town’s pretreatment program and local discharge controls underscores that the existing limitations are already sufficient to protect water quality. Therefore, we respectfully request that EPA reevaluate the proposed reductions and refrain from imposing unnecessary and unjustified effluent limitations that could unduly restrict AB’s operational capacity in the future. Any final permit issued by EPA should contain the same BOD and TSS limits as the prior permit.

¹ The proposed changes in effluent limitations are as follows: TSS average monthly discharge limitation increased from 1,375 lb/day to 1,473 lb/day; BOD maximum daily discharge limitation increased from 2,365 lb/day to 2,581 lb/day; TSS maximum daily discharge limitation increased from 2,763 lb/day to 3,255 lb/day.

² “Based on correspondence with the Merrimack WWTF, the 2019 through 2023 average brewery production was 5,711 barrels per day was used in the development of these limits. This level is a decrease from the 9,559 barrels per day used in the 2015 individual permit.” NPDES Permit No. NHG590000, 2024 Fact Sheet at 18.

³ 72.4 pounds per 1,000 barrels BOD is approximately 54 mg/L and 100.63 pounds per 1,000 barrels of TSS is approximately 75 mg/L

⁴ NHDES Wastewater Best Management Practices for Breweries (Jan. 2020) available at <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/wastewater-bmps-breweries.pdf>.

⁵ RI DEM, Environmental Fact Sheet – Breweries, Distilleries, and Wineries (June 2019) available at <https://dem.ri.gov/sites/g/files/xkgbur861/files/programs/benviron/water/permits/ripdes/pdfs/brewery-ipp-fs.pdf>.

Response 222

See Responses 145 and 220.

Comment 223

EPA unreasonably and unlawfully included a copper effluent limit in the Draft Permit without providing any supporting data, rationale, or explanation for its necessity.

EPA included a copper effluent limit in the Draft Permit without providing any rationale, supporting data, or explanation for how the limit was determined to be necessary. The sudden imposition of this limit, absent any evidence or justification, leads to the conclusion that the decision was made without due consideration or a clear, evidence-based rationale. Without such justification, interested parties cannot assess whether the limit is arbitrary. *See Puerto Rico Tel. Co. v. Tel. Reg. Bd. of Puerto Rico*, 665 F.3d 309, 319 (1st Cir. 2011) (explaining that an agency's decision cannot be upheld if “the agency lacks a rational basis for making the determination or if the decision was not based on consideration of the relevant factors.”).

First, in the most recent water quality report from Pennichuck Water Works, AB’s water supplier, their potable water supplied to AB contained 0.021 mg/L of copper. That is 21 milligrams per liter, which is nearly 10 times over the proposed limit of 2.4 micrograms per liter. With influent water containing such high levels of copper, AB and every other user of Pennichuck’s water will need to remove copper from the water before it is discharged to the Town to be in compliance with the new permit limit. Alternatively, the Town will need to install some form of treatment for copper in their effluent. Regardless, if this condition remains, dischargers to the WWTF will incur significant and unnecessary costs.

Second, the Town’s 2014 NPDES permit explicitly stated that “there is no reasonable potential (for either acute or chronic conditions) that the discharge of aluminum, cadmium, chromium, copper, lead, nickel, and zinc will cause or contribute to an exceedance of applicable water quality criteria. Hence, no metals are included in the draft permit.” Town of Merrimack, Permit No. NH0100161, p.15. EPA must demonstrate that the factual basis for including a copper limit is based on changes to the receiving water since issuing the 2014 permit; however, no such demonstration has been made.

Third, the Town's operations have not changed in any way that could cause adverse impacts on the receiving water from copper. In the absence of such evidence, there is no reason to believe the quality of the Merrimack River has worsened since EPA's prior finding that there was "no reasonable potential" for copper to exceed water quality criteria.

The imposition of the copper effluent limit is inconsistent with the Clean Water Act's objective of ensuring that effluent limits are based on scientifically valid data and actual environmental need, rather than arbitrary standards. Therefore, this condition should be removed.

Response 223

See Response 184.

Comment 224

EPA exceeds its legal authority, and creates undue burdens on the Town, by including requirements in the Draft Permit that the Town monitor for PFAS analytes in influent, effluent, and sludge.

The Draft Permit incorporates requirements that the Town use EPA methods 1633 and 1621 to monitor for per- and polyfluoroalkyl substances ("PFAS"), and adsorbable organic fluorine ("AOF"), respectively, in its influent, effluent, and sludge. EPA cannot, as a matter of law, include requirements related to PFAS-monitoring in the Town's final permit. The EPA lacks clear legislative authority to require PFAS monitoring for discharges to surface water. Furthermore, any requirement that the Town monitor for PFAS analytes will pose an undue financial burden on the Town, without proper justification or legal basis, and without conducting a cost and benefit analysis.⁷

EPA does not have the authority to require PFAS monitoring absent clearly established water quality criteria. While EPA has the authority to regulate pollutants under the Clean Water Act, including the establishment of monitoring requirements, the lack of specific PFAS surface water quality criteria leave EPA devoid of any clear benchmark against which to assess the necessity of monitoring. Drinking water quality standards and ambient groundwater quality criteria are entirely separate from surface water quality standards and have no legal or practical bearing on permitted discharges to the Merrimack River. The EPA has not demonstrated any evidence of adverse environmental impacts to the river, biota or fauna, nor has it found adverse human health effects in connection with PFAS compounds in surface waters. Therefore, EPA's demand for monitoring is entirely without basis.

Moreover, EPA's directive that the Town utilize methods 1633 and 1621 to monitor for PFAS analytes and AOF is outside of the scope of the EPA's authority. EPA notes in the Draft Permit that there is no "final 40 C.F.R. § 136 method for measuring PFAS in wastewater and sludge." Draft NH Medium WWTF General Permit No. NHG590013, Fact Sheet, p. 43. Nonetheless, EPA seeks to require monitoring via Method 1633 which it states was "finalized" in January of this year. Respectfully, no analytical method is "final" for the purpose of NPDES permit monitoring, until promulgated via the notice and comment rulemaking process. Neither Method 1633 nor method 1621 has been properly promulgated by EPA. EPA's reliance on non-promulgated

analytical methods contravenes the procedural requirements of the APA, section 503. See 5 U.S.C. §§ 553, 706(2)(D).

Furthermore, in issuing a draft condition regarding PFAS monitoring, the Agency relies heavily on “guidance” or “action plans,” which are not legislative authority. See Draft Permit, 2024 Fact Sheet at 41–44 (relying heavily on EPA’s Action Plan, a memorandum from Radhika Fox, Assistant Administrator of EPA’s water division and EPA’s PFAS Road Map and PFAS Action Plan). Apart from such guidance, EPA entirely relies on Section 308 of the Clean Water Act. Such reliance is misplaced, however, because neither the State of New Hampshire, nor the federal government has set surface water quality standards for PFAS.

It is also expected that many PFAS rules and regulations, which the new administration regards as unduly burdensome on the regulated community, will be withdrawn or rescinded. As recent as February 7, 2025, the D.C. Circuit granted the EPA’s request for a stay in pending litigation that is challenging EPA’s stringent limits on six PFAS in drinking water. In EPA’s motion to hold the pending litigation in abeyance, EPA stated in pertinent part: “As the Court is aware, a new administration took office on January 20, 2025. There is now new leadership at EPA. That new leadership is in the process of familiarizing itself with the issues presented in this case and related litigation.”⁸ The motion further stated that “courts have long recognized that agencies may generally review and, if appropriate, revise their past decisions.”⁹

We have also seen the new administration withdraw the Agency’s proposed effluent limitations guidelines for PFAS, namely, EPA’s proposed Rule on “Clean Water Act Effluent Limitations Guidelines (ELG) and Standards for PFAS Manufacturers Under the Organic Chemicals, Plastics and Synthetic Fibers (OCSPF) Point Source Category.” Coupled with the Regulatory Freeze Pending Review Executive Order,¹⁰ the EPA’s pending review of PFAS drinking water standards, and the delay adding certain PFAS to the Toxics Release Inventory (TRI),¹¹ the Agency should withhold issuance of any permits that unlawfully and unreasonably require a permittee to sample and/or monitor for PFAS, unless and until EPA makes a final determination on the rules, and the courts issue a decision in the *American Water Works Assoc. et. al., v. US EPA, et al.* litigation.

Finally, should the EPA include PFAS monitoring requirements in the Town’s Final NPDES Permit, mandating that the Town use method 1633 and 1621 for monitoring PFAS analytes and AOF will create undue financial burdens on the Town, which ultimately will likely be borne by AB. These costs simply cannot be justified for PFAS sampling, as the EPA lacks any legal or factual basis to justify the necessity of the sampling itself.

⁷ See *infra* Part III.G.

⁸ *American Water Works Assoc. et. al., v. US EPA, et al.*, Case No. 24-1188 (D.C. Cir.), EPA’s Unopposed Motion to Hold Case in Abeyance, at ¶ 3 (Feb. 7, 2025).

⁹ *Id.* at ¶ 5; see also *Motor Vehicle Mfrs. Ass’n v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 42 (1983) (“[R]egulatory agencies do not establish rules of conduct to last forever [and] an agency must be given able latitude to adapt their rules and policies to . . . changing circumstances.”); *Nat’l Ass’n of Home Builders v. EPA*, 682 F.3d 1032, 1038, 1043 (D.C. Cir. 2012) (explaining that an agency’s “reevaluation of which policy would be better in light of the facts” is “well within” its discretion and that a change in administration is a “perfectly reasonable basis for an

executive agency’s reappraisal of the costs and benefits of its programs and regulations” (internal quotation marks omitted)).

¹⁰ <https://www.whitehouse.gov/presidential-actions/2025/01/regulatory-freeze-pending-review/>

¹¹ 90 Fed. Reg. 9010 (Feb. 5, 2025).

Response 224

Regarding cost, see Responses 1 and 6.

Regarding methods, see Response 11.

Regarding the new administration, EPA Region 1, as is always the case, has consulted with EPA’s Office of Water and Office of General Counsel at Headquarters to ensure consistency with EPA’s national approach.

Comment 225

Monthly visual inspections required by the Draft Permit are administratively burdensome, and redundant, because New Hampshire’s existing water quality standards already prohibit discharges that impair aesthetic values in receiving waters.

The Draft Permit requires the Town to conduct monthly visual inspections of the receiving water near the outfall for a range of aesthetic parameters, including odor, color, turbidity, visible floating materials, foam, scum, settleable solids, and surface film or sheen. This requirement is redundant and unnecessary.

New Hampshire’s surface water quality standards, specifically Env-Wq 1703.03(c)(1), already prohibit discharges that cause all the aforementioned undesirable aesthetic effects. These standards ensure that the quality of the receiving waters is maintained in a manner that protects aesthetic values and the designated uses of the waters. Given that the Permittee is already required to comply with these State water quality standards, these additional monthly visual inspections are unnecessary to ensure compliance. Indeed, the Town is already required to comply with existing effluent limitations and to conduct sampling of its effluent to ensure compliance with this requirement. See Draft NH Medium WWTF General Permit No. NHG590013, Merrimack Authorization, Part II.A.

Visual inspections will not consistently capture the necessary data with the precision required to assess compliance with water quality standards. Modern, more reliable monitoring techniques, as already required in the Draft Permit, would better serve the goal of ensuring water quality without the administrative burden of subjective monthly inspections. Moreover, the requirement that the Town “conduct a visual inspection of the receiving water *in the vicinity* of the outfall.” What is meant by “in the vicinity”? The permit requirement is vague and ambiguous and cannot be reliably enforced.

Further, conducting monthly visual inspections—which are not required by other existing NPDES permits issued to wastewater treatment facilities along the Merrimack River and elsewhere¹²—imposes an operational burden on the Permittee, diverting resources from more impactful water quality management efforts. Selectively singling out the Town for this requirement, while

not imposing this requirement on others, is a violation of the due process and equal protection clause of the State and federal constitutions.

¹² See e.g., NPDES Permit No. NH0100901 (Concord Hall Street Wastewater Treatment Plant); NPDES Permit No. NH0101390, November 21, 2021 (Allenstown Sewer Commission; NPDES Permit No. 0100170, March 6, 2015 (City of Nashua, NH); NPDES Permit No. MA0100447, September 25, 2019 (Greater Lawrence Sanitary District); see also NPDES Permit No. NH0100013, April 29, 2004 (Berlin Pollution Control Facility and Combined Sewer Outfall); NPDES Permit No. NH0100234, August 1, 203 (Pierce Island Wastewater Treatment Facility).

Response 225

Regarding the comment that NH's surface water quality standards already apply to the discharges and already prohibit discharges that impair aesthetic values, EPA has an independent duty under section 301(b)(1)(C) to ensure the permit achieves state water quality standards. See [*In re City of Marlborough, Mass. Easterly Wastewater Treatment Facility*, 12 E.A.D. 235, 252 n.22 \(EAB 2005\)](#). Further, EPA agrees that the permit is designed to protect water quality standards (including aesthetics) based on the effluent limitations included in the permit, but considers that this visual inspection is necessary to ensure compliance. Similar to any other effluent requirement (e.g., copper), a limit is included in the permit and a monitoring requirement is included to ensure compliance. The visual inspection is intended to serve as a monitoring requirement to ensure compliance with aesthetics. As noted in Response 54, visual observations results are not directly enforceable, but EPA may use the results to establish more stringent permit requirements in the future, if necessary.

Regarding the definition of "in the vicinity" of the outfall, EPA clarifies this to mean the general area of the receiving water expected to be most directly impacted by the discharge. EPA realizes the precise location is subject to the discretion of the Permittee, which is intentional given the variety of discharge locations and receiving waters under this General Permit.

Regarding this requirement singling out the Town of Merrimack, EPA disagrees and is not singling out any permittee. EPA recognizes that this is a new requirement based on an updated permitting approach in response to a recent Supreme Court ruling (see Responses 5 and 52) but notes that this requirement applies equally to all 21 eligible WWTFs under this General Permit as well as other recently drafted individual permits in NH (i.e., NH0100447 – Manchester WWTF, NH0100170 – Nashua WWTF). Further, EPA intends to continue to include this monitoring requirement in future permits (subject to potential changes based on future public comment).

Comment 226

The requirement for a benthic survey in the Merrimack River is burdensome, impractical, and unnecessary.

The Draft Permit requires the Permittee to conduct a benthic survey in the Merrimack River once during the permit term. This requirement is redundant, burdensome and impractical given the unique characteristics of the Merrimack River.

First, like the aesthetic standards discussed above, New Hampshire's water quality standards already prohibit discharges that cause harmful impacts to aquatic life, including impacts to the benthic community. These State standards, as outlined in Env-Wq 1703.03(c)(1) and Env-Wq 1703.08(b), ensure that surface waters are free from harmful benthic deposits and that any discharge complies with water quality standards that protect aquatic life.

Second, conducting a benthic survey in a large, dynamic river like the Merrimack presents several logistical challenges. The river has a long history of industrial contamination, particularly from historic mill operations, which has altered the benthic environment. These legacy impacts, unrelated to the permitted operation of the Town's wastewater treatment facility—combined with the river's high flow rates and sediment transport dynamics, create a complex ecosystem where it is impossible to isolate the effects of the Town's discharge of effluent to the river from other natural and historical influences. The Merrimack River also is the receiving water for multiple other wastewater treatment facilities, both upstream (Franklin, Concord, and Allenstown) and downstream (Nashua, Lowell, Lawrence). As such, a benthic survey cannot reasonably be expected to produce reliable or actionable data on the discharge's effects on the benthic community.

Third, it has already been reported that nearly 100% of the Merrimack River already supports the State's designated uses. Specifically, the reduction in pollutants has already resulted in the re-establishment of benthic fauna.¹³

Fourth, the costs and resources required to conduct such a survey—not required by other existing NPDES permits¹⁴—are selectively burdensome for the Town. The Merrimack River is a large waterbody, and sampling would need to occur at multiple locations along both upstream and downstream transects. The variability in sediment composition, flow dynamics, and the presence of other pollution sources make it logistically challenging to conduct a meaningful survey that could provide scientifically defensible results. Given the complexity of the river system, the data collected from such a survey cannot be expected to provide useful or interpretable insights that would support informed decision-making.

Finally, alternative monitoring methods, such as focused effluent water quality monitoring (e.g., dissolved oxygen, nutrient levels, etc.), that are already required in the Town's permit provide more direct and relevant information regarding the discharge's impact on the river's ecosystem.

¹³ See Merrimack River Watershed Protection Initiative, Past, Present and Future, EPA Region 1, *available at* <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=9101IWOR.TXT>

¹⁴ See *supra*, footnote 12.

Response 226

See Response 101.

Comment 227

The EPA failed to perform a cost-benefit analysis.

Considering the costs and benefits of agency actions has long been a guiding principle in pursuit of informed and prudential agency decision-making. In the context of the Clean Water Act, the EPA is authorized to weigh financial costs of a permit requirement, against the anticipated water quality benefits. Historically, EPA has conducted cost-benefit analyses under the Clean Water Act even in the absence of clear legislative directive. In *Entergy Corp. v. Riverkeeper Inc.*, for example, the United States Supreme Court upheld EPA's application of a cost-benefit analysis, finding that despite the statute's silence with respect the consideration of costs and benefits, "it was well within the bounds of reasonable interpretation for the EPA" to perform a cost-benefit analysis in setting effluent standards under the Clean Water Act. *Entergy*, 556 U.S. at 223; *see also id.* at 218 (agreeing with EPA's interpretation that the setting of effluent limits allows for the consideration of the costs of technology and the relationship between those costs and the environmental benefits produced). Consistent with the EPA's approach to considering costs and benefits when setting effluent limits under the Clean Water Act, EPA should conduct a proper cost-benefit analysis before including PFAS and other monitoring requirements given the extraordinary compliance costs to the Town.

Response 227

The case cited by the Commenter, *Entergy Corporation v. Riverkeeper*, 556 U.S. 208 (2009), concerns technology-based effluent limits (TBELs) developed pursuant to CWA § 316(b). The legal principles applicable to the development of § 316(b) TBELs are unique and not at issue in this permit. The PFAS monitoring provisions at issue here are included pursuant to Sections 308 and 402 of the CWA, which provides EPA with broad authority to establish permit conditions for data collection and reporting. Although there is no requirement for cost-benefit analysis, EPA does take into account the costs imposed by monitoring conditions. See Response 1. In the case of an emerging contaminant for PFAS, for which both the State of New Hampshire and EPA are engaged in regulatory efforts, EPA determined it was necessary and appropriate to impose the monitoring requirements included in the Final General Permit in order to better understand the sources, locations, and quantities being discharged through these POTWs.

AA.Comments from Gail Lang, on January 10, 2025.

Comment 228

Thank you for the opportunity to review and comment on Public Notice for Draft NPDES Permit Number NHG590000

I am a retired senior scientist with a PhD in Microbiology. I was a VRAP volunteer and serve on the Contoocook North Branch Rivers Local Advisory Committee (CNRBLAC.)

I am impressed by the scope of the permit. It is comprehensive and addresses the issues of major concern to the Contoocook River. However, there is one area which is in need of an update. This is an issue of public health and safety that can be solved with local notifications of violations.

The Jaffrey WWTF and the Peterborough WWTF are within the *E. coli* impaired segments that form the headwaters and upper regions of the Contoocook River. Effluent from the Jaffrey WWTF had 13 violations of the *E. coli* limit (2019 -2023), slugs of ammonia in 2022 and 2023 and 5 violations of TP in 2020/2021 plus violations of the limit for copper. (Jaffrey NPDES Monitoring Data)

The sources of fecal contamination should be identified and remediated. NHDES and EPA should alert the LAC, the local Con Com and downstream water users in real time of reported industrial violations for public health and safety as well as for VRAP volunteers and downstream water users to avoid potential exposure to pathogens and toxins.

The requirements for reporting violations as outlined in the permit are insufficient to provide adequate notification to the public and immediate downstream water users and need to be updated to include notification to local entities at the time of the violation. In addition, physical kiosks at all public access entry points to the river should contain notification of all impairments and the associated health risks.

I appreciate your consideration of these comments on local notification of violations for inclusion in the permit for the sake of public health and safety on the Contoocook River.

Response 228

EPA appreciates the concern of this commenter with regard to impacts to public health downstream of these WWTFs.

Regarding public notification of permit violations, EPA notes that all reported results (including violations) are made available immediately on EPA's Enforcement and Compliance History Online (ECHO) website at <https://echo.epa.gov>. Any interested party may access reported results for any receiving water through this website. Likewise, any interested party may access listed water quality impairments on NHDES's website at <https://www.des.nh.gov/water/rivers-and-lakes/water-quality-assessment>. EPA recognizes the benefit of alerts to downstream users and volunteers or physical kiosks at all public access entry points, but notes that such methods of public notification are impracticable given the wide range of users and locations.