RESPONSE TO COMMENTS
NPDES PERMIT NO. MA0102598
CHARLES RIVER POLLUTION CONTROL DISTRICT
MEDWAY, MASSACHUSETTS

The U.S. Environmental Protection Agency's New England Region (EPA) is issuing a Final National Pollutant Discharge Elimination System (NPDES) Permit for the Charles River Pollution Control District (CRPCD) located in Medway, Massachusetts. This permit is being issued under the Federal Clean Water Act (CWA), 33 U.S.C., §§ 1251 *et seq.*

In accordance with the provisions of 40 Code of Federal Regulations (CFR) §124.17, this document presents EPA's responses to comments received on the Draft NPDES Permit # MA0102598 ("Draft Permit"). The Response to Comments explains and supports EPA's determinations that form the basis of the Final Permit. From December 16, 2024 through January 30, 2025, EPA solicited public comments on the Draft Permit.

EPA received comments from:

- Elizabeth Taglieri, P.E., CRPCD, dated January 30, 2025.[1]
- Douglas Martin, Town of Franklin, MA, dated January 30, 2025.
- Jesse Riedle, Town of Bellingham, MA, dated January 30, 2025.
- Peter Pelletier, Town of Medway, MA, dated January 29, 2025.
- James McKay, Town of Millis, MA, dated January 30, 2025.
- Philip D. Guerin, Massachusetts Coalition for Water Resources Stewardship, dated January 30, 2025.

Although EPA's knowledge of the facility 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 Permit. Below EPA provides a summary of the changes made in the Final Permit. The analyses underlying these changes are contained in the responses to individual comments that follow.

A copy of the Final Permit and this response to comments document will be posted on the EPA Region 1 web site: at https://www.epa.gov/npdes-permits/massachusetts-final-individual-npdes-permits.

A copy of the Final Permit may be also obtained by writing or calling Michele Duspiva, at (617) 918-1682 or Duspiva.Michele@epa.gov.

[1] This commenter also submitted supplemental comments on September 4, 2025. EPA reviewed these comments, but they are not included in this Response to Comments document given that they were submitted well after the close of the public comment period. See 40 CFR § 124.13.

I. Summary of Changes to the Final Permit

1. The ammonia limit during the winter months of November through March has been removed from the Final Permit and replaced with a monthly monitoring requirement. See Response 3.

2. The Total Kjeldahl Nitrogen (TKN) limit has been removed from the Final Permit. See Response 4.

3. The ambient monitoring requirement for phosphorus has been removed from the Final Permit. See Response 5.

4. The Adaptation Plan requirement has been removed from the Final Permit. See Response 7.

5. The addresses for Co-Permittees Medway and Bellingham have been corrected in the Final Permit. See Response 10.

6. The name of the Permittee has been corrected in the Final Permit. See Response 11.

7. The sample type for dissolved oxygen has been changed to "meter." See Response 16.

II. Responses to Comments

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

A. Comments from Elizabeth Taglieri, P.E., of the CRPCD:

The Charles River Pollution Control District (the "District") respectfully submits the enclosed comments on (1) the draft National Pollutant Discharge Elimination System ("NPDES") permits issued by the United States Environmental Protection Agency ("EPA") on December 16, 2024 and Massachusetts Department of Environmental Protection ("MassDEP") on December 20, 2024 (collectively, the "Draft Permit")[2] for the District's Treatment Facility (the "Facility") and (2) the Clean Water Act Section 401 Water Quality Certification for the 2024 Proposed NPDES Draft Permit for the District (the "Water Quality Certification"). The proposed changes in the Draft Permit and Water Quality Certification from the current permit will harm the District's

[2] To the extent that the MassDEP draft permit issued on December 20, 2024 incorporates by reference the provisions of EPA's draft permit issued on December 16, 2024 (see, e.g., Paragraphs 5 and 6 of MassDEP's draft permit), these comments respond to both draft permits. When a comment refers to an additional requirement of the MassDEP draft permit not included in the EPA draft permit or the Water Quality Certification, such comment specifically notes the applicable provision at issue.

future compliance strategies, capital investments, and overall affordability to its ratepayers without providing any environmental benefit. The District, in conjunction with its consultant, CDM Smith, and its legal counsel, Nutter, McClennen and Fish LLP, is therefore providing detailed comments on the Draft Permit so that a final permit addresses these issues. The District welcomes and appreciates any opportunity to work with EPA and MassDEP to resolve the questions and issues identified in these comments prior to the issuance of a final permit.

Background

The District owns and operates the Facility and an interceptor system, serving approximately 7,600 residents in the Town of Franklin, 2,800 residents in the Town of Medway, 1,250 residents in the Town of Bellingham and 1,400 residents in the Town of Millis. Currently, the Facility is regulated by NPDES Permit No. MA0102598 (issued July 23, 2014). When finalized, the Draft Permit will supersede the 2014 NPDES permit.

The Draft Permit is also issued to four co-permittees: Town of Franklin, Town of Medway, Town of Millis and Town of Bellingham. It is the District's understanding that any support for these comments or additional input from the co-permittees will be provided by the co-permittees in separate comment letters.

The Charles River Pollution Control District offers the following comments and requests for clarifications:

Comment 1

Removal of the 4.5 million gallon der day ("mgd") summer limit. Although the Facility is permitted and designed to treat 5.7 mgd and is provided a 12-month rolling average limit of 5.7 mgd in the 2014 Permit and the Draft Permit, Part I.A.1 continues to include a flow restriction of 4.5 mgd during the summer months (July-September).

Before 2000, the District's permitted flow was 4.56 mgd, which reflected the then current design capacity of the Facility. However, following coordination and discussions with EPA and MassDEP, the permitted design capacity was increased to 5.7 mgd in 2000. The District requested during the public comment period on the 2000 draft NPDES permit that the design capacity of 5.7 mgd not be used in calculating the dilution factor during the term of that permit and instead use an average summertime flow of 4.5 mgd. The continued use of the 4.5 mgd flow limit in summer months was implemented in the 2000 NPDES permit because the District could not use the full design capacity of 5.7 mgd until at least 2015 (the discussion of the 2000 NPDES permit terms regarding flow can be found in Attachment A in the Response to Public Comment from the District's Draft 2000 NPDES permit starting on page 2 (attached as Exhibit A, hereto)). The upgrades, which were funded in part by State Revolving Fund grants, were completed around 2000, and there is therefore no reason for the lower seasonal limit to continue.

Section 2.3 of the Draft Permit Fact Sheet states that it is "EPA practice [] to use effluent flow as a reasonable and important worst-case condition in its reasonable potential and WQBEL calculations to ensure compliance with WQSs under CWA § 301(b)(1)(C)." (*see also id.* (". . . EPA may ensure the validity of its 'worst-case' effluent flow assumptions through imposition of permit conditions for effluent flow."). Section 2.3 also relies on 40 C.F.R. § 122.41(e), which requires a permittee to "at all times properly operate and maintain all facilities and systems of treatment and control *** which are installed or used by the permittee to achieve compliance with the conditions of this permit." *In re City of Lowell,* E.A.B., NPDES Appeal No. 19-03, at 156 (June 29, 2020).[3] "Emphasizing that the flow limit is based on the design capacity of the treatment facility, the Region concluded that the flow limit is a condition that is 'appropriate to assure that [the permittee] operates its facility to comply with its permit's technology- and water quality-based effluent limits." *Id.* (quoting Region Response to Comments).[4]

These reasons do not apply to the Draft Permit's 4.5 mgd summer limit. The Facility's capacity is 5.7 mgd and therefore the summer limit is not a "worst-case" condition and has no relationship to the operations and maintenance of the "facilities and systems of treatment and control" needed "to achieve compliance with the conditions of the permit. *See id.* Further, the summer limit is expressly contrary to 40 C.F.R. § 122.45(b)(1), which states that "permit effluent limitations *** shall be calculated based on design flow." 40 C.F.R. § 122.45(b)(1); *In re City of Lowell* at 156. The lower summer limit in the Draft Permit is not based on design flow as required by the regulation.

Section 2.3 of the Draft Permit Fact Sheet also claims that the effluent flow limit is meant "to minimize or prevent infiltration and inflow (I/I) that may result in unauthorized discharges and compromise proper operation and maintenance of the facility." EPA provides no explanation as to how or why it can use a flow limit to affect I/I, nor how a seasonal limit will minimize it.

Further, flow itself is not a pollutant and thus cannot trigger an antidegradation review absent a request to increase pollutants. *Virginia Dept. of Trans. v. EPA*, No. 1:12-CV-775, 2013 WL 53741 (E.D. Va. 2013) Finding that "EPA is not authorized to regulate [stormwater flow] via TMDL" because it is not a pollutant. *See also In re City of Lowell,* at 155. Because the Facility would not increase the load limits, antidegradation review does not apply.

The summer flow limit is also practically infeasible and an unintended restriction on future development, including much needed housing in Massachusetts. The member towns cannot materially limit usage in the summer months; thus, the Draft Permit is effectively imposing a 4.5 mgd limit year-round. This would be a waste of 1.2 mgd of available capacity without any environmental need because of the Facility's ability to meet effluent limits using the full 5.7

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[3] https://yosemite.epa.gov/OA/EAB_WEB_Docket.nsf/Case~Name/6D63DE203BB980D2852585960069906D/$File/City%20of%20Lowell.pdf

[4] Section 2.3 also cites to CWA § 402(a)(2), 40 CFR § 122.4(a), 122.43 and 122.4(d), which all generally allow for conditions as necessary to comply with the permit and the CWA, without any reasoning as to how they apply to the seasonal limit. The seasonal flow limit is not necessary to meet any discharge limits or assure compliance with the permit or the CWA.

mgd design capacity in the reasonable potential calculations. In light of Massachusetts' desperate need for housing development, artificially reducing the District's capacity will also serve to limit the ability of the member towns' ability to permit new development and plan for future development.

Having the flow limit match the plant's 5.7 mgd capacity does not create an antidegradation concern. The Draft Permit already uses the 5.7 mgd design capacity in calculating reasonable potential (See Comment 2 below). And because the dilution factor would decrease with the application of the 5.7 mgd design capacity, the applicable effluent limits for total residual chlorine (TRC) and C-NOEC would then be adjusted in a final permit to reflect the removal of the summer flow limit. There would be no other changes to the limits in the Draft Permit because the load limits for total suspended solids, CBOD and ammonia would not increase because the loading calculations for these pollutants were calculated on the historic capacity (4.56 mgd), which the District is not seeking to increase. Finally, the copper, ammonia, and phosphorus WQBELs would not change because the reasonable potential analysis prepared by EPA in Appendix B of the Fact Sheet uses the 5.7 mgd design flow. The proposed TKN limits would also not change because EPA based the limit on the 1976 WQMP. As shown in **Exhibit B,** which analyzes the proposed effluent limitations using both a 4.5 mgd and 5.7 mgd flow limitation, there is no antidegradation issue because the effluent and load limits either do not change or can be adjusted, in the case of TRC and C-NOEC. Exhibit B also incorporates the District's requested changes to effluent limitations and monitoring frequencies as described in the comments below.

Request: The summer 4.5 mgd limit should be removed and all reasonable potential and other calculations should be recalculated using the Facility's design capacity of 5.7 mgd as required by 40 C.F.R. § 122.45(b)(1). The effluent and load limitations presented in Exhibit B for the 5.7 mgd design capacity should then be incorporated into the final permit.

Response 1

This comment objects to the monthly average effluent flow limit of 4.5 MGD (applicable from July through September) that was carried forward from the 2014 Permit and requests that the permit only include the rolling annual average flow limit of 5.7 MGD.

First, the comment references the justifications for the inclusion of an effluent flow limit found in Section 2.3 of the Fact Sheet and suggests that these justifications do not apply to the 4.5 MGD limit but only to the 5.7 MGD limit. EPA agrees with the commenter that these justifications specifically support the 5.7 MGD limit (based on the design capacity of the facility) and not the 4.5 MGD limit. This portion of the comment also questions how a flow limit can affect I/I. This simple answer is that a Permittee may decide to take more aggressive measures to reduce I/I in order to come into compliance with a flow limit and/or increase capacity for more baseflow from its users. In any case, this rationale in the Fact Sheet is also intended to apply only to the 5.7 MGD design flow.

Second, the comment suggests that the 4.5 MGD limit is expressly contrary to 40 CFR § 122.45(b)(1), which states that "permit effluent limitations *** shall be calculated based on design flow." In general, EPA agrees that effluent limits (especially those pollutant-specific limits calculated based on effluent flow) should be based on the design flow of a facility. However, in this case, the existing effluent flow limit in the permit (*i.e.*, 4.5 MGD for July through September) is based on the previous flow limit. EPA is not establishing or calculating this 4.5 MGD flow limit in this permit reissuance, but, rather, is carrying it forward from the previous permit because any flow increase is not authorized unless it has been demonstrated that it will not violate antidegradation requirements, as discussed in more detail below.

Third, the comment suggests that an antidegradation review is not necessary for a flow limit increase because flow itself is not a pollutant and the pollutant-specific load limits would not increase. EPA disagrees that this flow increase request would not allow an increase in pollutant loads. For pollutants that are currently limited in the permit, maintaining the same or slightly adjusted limits (as described in the comment and Exhibit B) could ensure that these pollutants do not increase and comply with antidegradation requirements. However, for pollutants that are not currently limited in the permit, allowing a flow increase in July through September would effectively allow any number of these pollutants that are present in the discharge to increase proportionally to the flow increase. It is unknown whether the increase of these pollutants may violate antidegradation regulations until an antidegradation review is completed.

Therefore, in order for EPA to increase the permitted effluent flow (*e.g.*, for July through September) from the facility, MassDEP must first complete an antidegradation analysis, pursuant to 314 CMR 4.04 and MassDEP's "Implementation Procedures for the Antidegradation Provisions of the Massachusetts Surface Water Quality Standards, 314 CMR 4.00",[5] which reflect federal requirements at 40 CFR §131.12. It is MassDEP and EPA's joint position that the District has yet to provide the information necessary to analyze and justify an increase of treated wastewater effluent flow from the Facility. If the District chooses to move forward with an antidegradation analysis in coordination with MassDEP, accompanied by the necessary data and analysis, the District may request EPA to issue a corresponding increase in the effluent flow limit through a permit modification (or, alternatively, wait until permit reissuance proceedings) if the analysis demonstrates that an effluent flow increase would comply with antidegradation requirements.

This comment does not result in any change to the Final Permit.

[5] Implementation Procedures for the Antidegradation Provisions of the Massachusetts Surface Water Quality Standards, 314 CMR 4.00, Effective 10/21/2009. https://www.mass.gov/files/documents/2016/08/wo/antideg.pdf.

Comment 2

Dilution Factor and Design Flow. As described in the Fact Sheet (Page 18), MassDEP calculated a dilution factor of 1.43 based on the 7Q10 and the July through September flow limit of 4.5 mgd. Assuming that EPA and MassDEP agree with the discussion in Comment 1 above, the dilution factor should be revised to reflect the 5.7 mgd as shown in the below:

$$DF = \frac{Q_s + Q_e}{Q_e} = \frac{1.91\ mgd + 5.7\ mgd}{5.7\ mgd} = 1.34$$

Where Q_s is the 7Q10 flow and Q_e is the design flow. This change would result in the following effluent limits for TRC and C-NOEC. As discussed in Comment 1, copper, ammonia, and phosphorus WQBELs were already calculated in Appendix B of the Fact Sheet using the 5.7 mgd design flow, the TSS, CBOD, and ammonia load limits were calculated based on a 4.56 mgd capacity, and the proposed TKN limits were set based on the 1976 WQMP; these limits would not change with a 5.7 mgd flow limit.

Table 1 Recalculated Effluent Limits for TRC and C-NOEC at a 5.7 mgd Flow Limit

Parameter	Limit at 5.7 mgd	Basis
Chronic TRC	15 µg/L	Chronic criteria * DF = 11 µg/L * 1.34
Acute TRC	25 µg/L	Acute criteria * DF = 19 µg/L * 1.34
C-NOEC	75%	1/DF = 1/1.34

In the alternative, if the summer flow limit of 4.5 mgd is not removed from a final permit, EPA's calculation using 4.5 mgd is the appropriate design flow to use in calculating WQBELs because low flow conditions with flows at 7Q10 only occur during the period where the 4.5 mgd flow limit is in effect. The District reviewed the 7-day average flow for the period of record at the USGS Charles River at Medway, MA gage (01103280, November 1997 through December 2024) and compared the flow against MassDEP's 7Q10 calculation (2.92 cfs at the gage and 2.96 cfs at the outfall location). This comparison (**Table 2**) indicates that 7-day average flows less than or equal to 7Q10 have only occurred during August and September.

Table 2 Comparison of Minimum Daily Mean and Minimum 7-day Average Flow at the USGS Charles River at Medway Gage (01103280, November 1997 through December 2024) and MassDEP's Calculated 7Q10

Month	Minimum Daily Mean	Minimum 7-day Average
January	16.3	18.7
February	33.4	36.4
March	47.2	50.2
April	27.7	32.8
May	16.8	18.1
June	6.5	7.2
July	3.17	3.9
August	1.61	2.0
September	2.06	2.2
October	4.25	3.7
November	7.51	8.1
December	10.2	11.0

Despite this, Appendix B of the Fact Sheet erroneously uses the 5.7 mgd design flow combined with the 7Q10 flow at the outfall location to assess the reasonable potential to exceed water quality criteria.

Request: The District requests that EPA (1) update the dilution factor to reflect the 5.7 mgd design capacity; or (2) if the summer flow limit of 4.5 mgd is not removed, noting that the District disputes this summer flow limit, reassess the reasonable potential using the 4.5 mgd flow, consistent with MassDEP's dilution factor calculation.

Response 2

See Response 1 indicating that the 4.5 MGD flow limit (July through September) has not been removed from the Final Permit.

Based on the flow data presented in this comment, EPA acknowledges that 7Q10 conditions are most likely to occur in August and September. EPA reevaluates reasonable potential using the 7Q10 low flow and an effluent flow of 4.5 MGD (which is the flow limit during these months), to see if it would have any impact to the limits during these months. Given that most limits in this permit reissuance are being carried forward from the 2014 Permit (based on anti-backsliding and antidegradation regulations) and/or are already based on 4.5 MGD from a previous permit when that was the design flow, such a recalculation in this permit reissuance would not impact any limits during August and September.

If EPA were to apply the effluent flow of 4.5 MGD outside of these months, only the ammonia limits in April, May, and November through March would be impacted. Specifically, the ammonia limit in April would change from 3.5 mg/L to 3.8 mg/L and the ammonia limit in May would change from 2.2 mg/L to 2.4 mg/L. [Note that the ammonia limit for November through March has been removed based on Comment 3 below.] However, the error with this approach would be that the design flow (and applicable flow limit) in April and May (when these potential changes would apply) is 5.7 MGD. As

noted by the commenter in Comment 1 above, calculating these ammonia limits at this time based on the previous design flow would be contrary to 40 CFR § 122.45(b)(1), which states that "permit effluent limitations *** shall be calculated based on design flow." Therefore, EPA finds that 5.7 MGD is the appropriate design flow to use in the calculation of ammonia limits in April and May and a recalculation using 4.5 MGD in these months would not be appropriate.

This comment does not result in any changes to the Final Permit.

Finally, EPA reiterates what was described on page 24 of the Fact Sheet, that the facility is already discharging ammonia well below these proposed levels in April and May. In fact, the maximum discharge in April and May during the most recent 5-year review period was 0.26 mg/L and 0.06 mg/L, respectively, more than an order of magnitude below the limits. EPA finds that consistent compliance with 3.5 mg/L and 2.2 mg/L, respectively, will not require any process changes.

Comment 3

Ammonia Limit. As presented, beginning on page 22 of 48 of the 2024 Fact Sheet, the 2014 NPDES permit for the District currently includes seasonal effluent limits for ammonia from April 1 through October 31. The Draft Permit proposes a new monthly average ammonia limit of 5.6 mg/L November through March, decreases the April limit to 3.5 mg/L (from 10 mg/L) and decreases the May limit to 2.2 mg/L (from 5 mg/L). The Draft Permit includes a two-year compliance schedule during which the District would need to come into compliance with the reduced ammonia effluent limits for the winter season.

The District reviewed the basis for the more stringent ammonia limitations in the Draft Permit and disagrees that there is reasonable potential to cause or contribute to an excursion of water quality standards for ammonia during the winter months. The new limitations should therefore be removed for at least the following reasons:

- EPA incorrectly applies the criterion maximum concentration equation for situations where Salmonidae species are present in a warm water fishery;
- EPA's reasonable potential calculation listed in Appendix B of the Fact Sheet contains errors in the effluent concentration for the winter limit;
- The EPA calculation incorrectly applies the *existing* ammonia criteria to assess the need for more stringent ammonia criteria; and
- EPA's reliance on a handful of temperature measurements from a location two miles upstream of the effluent discharge is not a defensible methodology for assessing a chronic criterion.

With these errors corrected there is no reasonable potential to exceed water quality criteria or support the new and reduced effluent limits in the Draft Permit.

Request: The District requests that the Draft Permit be revised to reflect the calculations below and that the winter limits be removed from the final permit. Additional details on the above are provided below:

a. *EPA erroneously applies the ammonia criteria for situations with Salmonidae are present.*

The District's outfall discharges to Charles River Segment MA 72-05, which is classified by MassDEP as a Class B Warm Water Fishery (see Fact Sheet, Page 2 and 314 CMR 4.06, Table 5). The ammonia criteria described in the Massachusetts Water Quality Standards at 314 CMR 4.06, Table 29a, Appendix B indicates that "Salmonidae species are presumed absent in surface waters designated as Warm Waters in 314 CMR 4.00; and in surface waters that are not designated Cold Waters, CFRs, or Cold Water Fishery existing uses, or tributary to such designated Cold Waters, CFRs, or Cold Water Fishery existing uses." Because the segment of the Charles River at the outfall location is designated as a Warm Water Fishery in 314 CMR 4.00, the CMC criterion for situations where Salmonidae species are absent is not scientifically valid. This results in changes to the acute criteria for winter (November through March) and April. The November through March acute criterion should be corrected to **34.3 mg/L** and the April acute criterion should be corrected to **25.1 mg/L**. This change is reflected in the District's calculations presented in **Tables 3 and 4** below.

Request**:** EPA should use the CMC criterion for situations where Salmonidae species are absent consistent with the receiving water's classification.

b. *EPA does not correctly perform the reasonable potential calculation to determine the winter ammonia limit.*

The District reviewed EPA's reasonable potential analysis in Appendix B of the Fact Sheet. This review indicated that EPA's analysis uses an incorrect effluent concentration to establish the reasonable potential to exceed the criteria. When corrected to actual recorded effluent concentrations (see Table 3), there is no reasonable potential to exceed ammonia criteria in the winter, and therefore an effluent limit is not required.

The District cannot reproduce/verify the statistics listed in Appendix B for C_e (11 mg/L for acute and chronic) for ammonia; we note that the *maximum* ammonia concentration recorded in the 5-year period is significantly lower than the concentrations reported in Appendix B (see **Table 3**). As can be seen in Table 3, the measured effluent concentrations indicate that EPA's assumptions for C_e are incorrect and do not represent. performance. The current permit does not include a numeric effluent limit for ammonia between November and March; the District believes that EPA incorrectly used the reported mass (versus concentration) discharge to establish C_e.

Table 3 Comparison of EPA's Reported Effluent Concentrations in Appendix B with Actual Effluent Concentrations from Appendix A for the Winter Ammonia Limit

Season	Draft Permit C_e Acute (mg/L)	Draft Permit C_e Chronic (mg/L)	Corrected C_e Acute (mg/L) (95th Percentile)	Corrected C_e Chronic (mg/L) (95th Percentile)
November – March	11.0	11.0	0.63	0.31

The District recalculated the reasonable potential analysis based on the corrected effluent concentrations (C_e) (**Table 4**, changes from the draft permit in **bold red font** – for both 4.5 and 5.7 design limits).

Table 4 Revised Reasonable Potential Analysis for the Winter Ammonia Limit

Qe (mgd)	Ce (mg/L)		Qd (mgd)	Cd (mg/L)		Criteria (mg/L)		Reasonable Potential	
	Acute	Chronic		Acute	Chronic	Acute	Chronic	Acute	Chronic
4.5	**0.63**	**0.31**	**6.41**	**0.47**	**0.25**	**34.3**	4.2	N	**N**
5.7	**0.63**	**0.31**	**7.61**	**0.50**	**0.26**	**34.3**	4.2	N	**N**

Based on this analysis there is no reasonable potential to exceed the winter ammonia limit. Therefore, the more stringent effluent limits imposed in the Draft Permit are not necessary for compliance with Massachusetts water quality criteria. The need for the more stringent ammonia limits at the Facility is not supported by the administrative record and limits therefore would be arbitrary and capricious. The monthly average winter ammonia limit should be removed and replaced with the existing monitor-only requirement.

In addition, the statement in the Fact Sheet that "the [Facility] has had several exceedances of the proposed limit of 5.6 mg/L from November through March during the review period" is incorrect. The maximum daily ammonia concentration during the review period (Appendix A of the Fact Sheet) was 1.06 mg/L. This statement should be deleted because no monthly average winter ammonia limit is required.

Request: EPA should revise its reasonable potential analysis to reflect actual facility data and remove the winter ammonia limits from the Draft Permit.

c. *Applying the existing ammonia effluent limits to recalculate the reasonable potential for April, May, and June – October periods is contrary to EPA regulations.*

The reasonable potential analysis conducted for parameters with an existing WQBEL incorrectly assumes that the effluent concentration is equal to the WQBEL in the current permit. Instead, EPA should have used the existing facility performance to determine if a more stringent effluent limit is required. This impacts the April, May, and June through October analyses, and results in EPA setting a more stringent monthly average WQBEL for the April and May timeframes.

This permitting approach is inconsistent with the Clean Water Act and EPA guidance in the *NPDES Permit Writers Manual* and the *Technical Support Document for Water Quality-based Toxics Control*. NPDES regulations discuss the requirements for determining whether a discharge has a reasonable potential to cause or contribute to an exceedance of water quality standards:

> When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water.
>
> 33 USC § 122.44(d)(1)(ii)

This concept is also expressed in EPA's guidance. For instance, the *NPDES Permit Writers' Manual* states:

> To establish the critical effluent pollutant concentration from the available data, EPA has recommended considering a concentration that represents something close to the maximum concentration of the pollutant that would be expected over time. In most cases, permit writers have a limited effluent data set and, therefore, would not have a high degree of certainty that the limited data would actually include the maximum potential effluent concentration of the pollutant of concern.
>
> NPDES Permit Writers' Manual at 6-17

Thus, characterizing the existing effluent by using the existing WQBEL is contrary to both the regulations and guidance. The District analyzed actual effluent performance and reassessed the reasonable potential to exceed water quality criteria in April, May, and June through October (**Table 5**, changes in **bold red text**).

Table 5 Revised Reasonable Potential Analysis

1. Period	Qe (mgd)	Ce (mg/L)		Qd (mgd)	Cd (mg/L)		Criteria (mg/L)		Reasonable Potential	
		Acute	Chronic		Acute	Chronic	Acute	Chronic	Acute	Chronic
June -Oct	**4.5**	**1.28**	**0.18**	**6.41**	**0.91**	**0.15**	10.1	1.3	**N**	**N**
April	**4.5**	**1.1**	**0.26**	**6.41**	**0.79**	**0.20**	**25.1**	2.7	**N**	**N**
May	**4.5**	**0.22**	**0.06**	**6.41**	**0.15**	**0.04**	13.8	1.7	**N**	**N**
June -Oct	**5.7**	**1.28**	**0.18**	**7.61**	**0.97**	**0.15**	10.1	1.3	**N**	**N**
April	**5.7**	**1.1**	**0.26**	**7.61**	**0.84**	**0.21**	**25.1**	2.7	**N**	**N**
May	**5.7**	**0.22**	**0.06**	**7.61**	**0.16**	**0.04**	13.8	1.7	**N**	**N**

Based on *actual facility performance*, which accounts for "existing controls" as required in § 122.44(d)(1)(ii), there is no reasonable potential to exceed the new, more stringent criteria calculated by EPA in the Draft Permit. Therefore, setting a more stringent WQBEL based on the

existing effluent limitations (for which the basis is not described in the Draft Permit) is arbitrary and capricious.

Request**:** The District requests that the existing April and May WQBELs be retained in the next permit issuance.

d. *EPA's temperature analysis is based on limited data is not appropriate for calculating a chronic criterion*

River Temperature data were obtained from CRWA and collected at the Shaw Street/Elm Street bridge approximately 2 miles upstream of outfall. Limited data were available, and EPA cites 4 data points for April and 5 data points for May between 2019 and 2023. These data are used to calculate the acute and chronic water quality criteria. The Massachusetts Surface Water Quality Criteria define an exposure duration for the chronic criterion; this is described in the Water Quality Standards (314 CMR 4.00) and in the 2022 Consolidated Assessment and Listing Methodology (CALM):

> Unless otherwise noted in Table 29a, the average ambient surface water pollutant concentration over any 1-hour period shall not exceed the criterion maximum concentration (CMC or acute criterion) more than once during any three year period and the ***average ambient surface water pollutant concentration over any 4-day period shall not exceed the criterion continuous concentration (CCC or chronic criterion) more than once during any three year period*** to protect against short- and long-term effects, respectively.
>
> CALM at 46, emphasis added

Therefore, it is not appropriate to assume the maximum observed temperature from a limited set of data is applicable for assessing a 4-day average, 1-in-3 year exceedance threshold. Instead, given the limited amount of data, the District recommends using the average of the data collected. This results in an average April temperature of 12.3°C and an average May temperature of 18.4°C. The updated chronic criteria and effluent limits are presented in **Table 6**.

Table 6 Recalculated Chronic Water Quality Criteria based on Average Temperature

Design Flow (mgd)	Period	Temperature (°C)	pH (SU)	CCC (mg/L)	Calculated Average Monthly Limit (mg/L)
4.5	April	12.3	7.1	3.0	4.2
4.5	May	18.4	7.1	2.0	2.9
5.7	April	12.3	7.1	3.0	3.9
5.7	May	18.4	7.1	2.0	2.7

Request**:** While the District objects to more stringent April and May monthly average ammonia limits due to the lack of a reasonable potential to exceed water quality criteria based on existing

controls, if EPA elects to reduce the ammonia limits, we request that EPA use the average temperature to calculate the effluent limits instead of the maximum temperature.

Response 3

This comment includes four objections to the ammonia limits in the Draft Permit. EPA has responded to each of these four objections below. As discussed in the second paragraph below, the proposed November 1 – March 31 ammonia nitrogen limit of 5.6 mg/L has been removed from the Final Permit and has been replaced with the previous monthly monitoring requirement. No other changes have been made to the proposed ammonia nitrogen limits in response to this comment.

First, the comment notes that the Charles River in the vicinity of the outfall is a warm water fishery and, therefore, salmonids should be presumed absent. EPA agrees and acknowledges that salmonids were incorrectly presumed present in the development of the Draft Permit. Appendix B of 4.06 in Massachusetts Surface Water Quality Standards says "Salmonidae species are presumed absent in surface waters designated Warm Waters in 314 CMR 4.00." However, EPA updated the ammonia calculations based on salmonids presumed absent and, in this case, it did not have any impact on the resulting limits.

Second, the comment suggests that the winter ammonia limit was calculated incorrectly and perhaps mistakenly used the mass values rather than the concentration values in the analysis to determine whether the discharge has the reasonable potential to cause or contribute to an excursion of water quality standards (*i.e.*, "reasonable potential analysis"). Upon review, EPA agrees that the mass values were mistakenly used rather than concentration values. EPA updated this calculation using the concentration values for the winter period of November through March, resulting in a 95th percentile value of 0.23 mg/L and a finding that there is no reasonable potential to violate the ammonia criteria during this season. Therefore, the proposed ammonia limit of 5.6 mg/L has been removed from the Final Permit and has been replaced with the previous monthly monitoring requirement.

Third, the comment suggests that the reasonable potential analysis was flawed because EPA used the existing limit rather than recent performance data in the calculation which the commenter suggests is inconsistent with the CWA and EPA guidance. EPA disagrees and notes that the rationale for this approach is clearly described on page B-2 of Appendix B of the Fact Sheet. In brief, the reasonable potential analysis for ammonia (in April, May and October) using actual performance data (consistent with the CWA and guidance cited in the comment) has already been performed in a previous permit reissuance resulting in the establishment of effluent limits during these months. Given that the facility still discharges ammonia, 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 limit. 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 limit is still protective of water quality standards using all updated data and information that is currently available. In this case, EPA found that the ammonia limits that were in effect in April and May (*i.e.*, 10 mg/L and 5 mg/L, respectively) do not adequately protect water quality standards and that new limits of 3.5 mg/L and 2.2 mg/L are necessary. If EPA were to maintain the higher effluent limits, the Permittee could legally reduce their ammonia treatment and increase their ammonia 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.

In Comment 33 below, the commenter suggests that anti-backsliding regulations could be used to prevent removal of the limit even if EPA were to recalculate reasonable potential using actual effluent data (rather than the existing limit) and find that there was no reasonable potential. EPA acknowledges that anti-backsliding could be used as an alternate rationale to prevent removal of the limit in that scenario. In fact, EPA does apply anti-backsliding regulations to prevent an increase in the limit 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, EPA still considers that it is inappropriate and inconsistent with the CWA to maintain a WQBEL at that level in the permit reissuance.

Fourth, the comment suggests that the upstream temperature data were limited and EPA should apply the average rather than the maximum temperature from the data set. As noted in the Fact Sheet, using the maximum temperature of this limited dataset is appropriate to ensure protection under all expected temperatures within a particular month. EPA acknowledges that the temperature data is limited, but notes that in the case of limited data EPA must make reasonable assumptions to ensure protection of water quality standards under all actual temperatures. Using the average temperature, as suggested by the comment, would allow water quality standards to be violated roughly half of the time (*i.e.*, whenever the actual temperature is above the average). Therefore, EPA finds that using the maximum temperature as the critical temperature is appropriate. Having said that, the Permittee is welcome to collect a more robust temperature dataset in the coming years and provide that to EPA along with a request to reevaluate the critical temperature and, if appropriate, update the effluent limit based on this new information.

Comment 4

Total Kjeldahl Nitrogen, Nitrate + Nitrite, Total Nitrogen. In addition to the new ammonia limits cited above, Part I.A.1 and the Fact Sheet, Page 24, require nitrogen sampling, including the addition of a Total Kjeldahl Nitrogen (TKN) limit of 1.7 mg/L and 95 lb/day year-round

(based on the 1976 WQMP waste load allocation, a report that is nearly 50 years old and developed prior to the CRPCD facility design and construction), and monitoring requirements for the sum of nitrate plus nitrite and Total Nitrogen. As described below, the basis for the TKN limit is unsubstantiated given current conditions in the Charles River, and the monitoring and reporting requirements are excessive and put an undue cost and burden on the CRPCD staff and laboratory.

As an initial matter, the District notes that two treatment plants in the watershed (Milford and Medfield) were recently issued new NPDES permits without TKN limits despite being assigned a load allocation in the 1976 WQMP. As described in more detail below, if EPA did not consider TKN limits to be necessary for these treatment plants, and it is shown there is no reasonable potential for a TKN limit, the TKN limit should be removed from the Draft Permit.

a. The TKN effluent limitations should be removed because the Draft Permit does not establish a reasonable potential for TKN to exceed water quality criteria.

The 2024 Fact Sheet has not demonstrated that there is a reasonable potential to exceed Massachusetts water quality guidance and standards with the District's existing TKN discharge levels. The Fact Sheet correctly states that the 1976 TKN waste load allocation was determined "to ensure that toxic ammonia concentrations would be eliminated from the Charles River." EPA completed a reasonable potential analysis in the 2024 Draft Permit to assess the facility's current impact on the attainment of ammonia criteria downstream of the outfall. This analysis indicates that the ammonia limits provide this protection.

To this point, as EPA is aware, TKN is equal to ammonia plus organic nitrogen. Thus, a TKN limit can be used in lieu of an ammonia limit to prevent ammonia impairment. Here however, where appropriate ammonia limits are in place (see discussion above in Comment 3), the TKN limit is redundant and in fact requires the District to meet a lower ammonia discharge in order to achieve the TKN limit. If the ammonia permit limits meet the water quality standard, it is unnecessary to impose more stringent TKN limits in April and May and no limit should be necessary in the winter months. **Table 7** compares the proposed monthly average TKN and ammonia limits in the Draft Permit.

Table 7 - Comparison of Ammonia and TKN Limits Proposed in the Draft Permit

Season	Proposed Monthly Average Ammonia	Proposed Monthly Average TKN
(April 1 - April 30)	3.5 mg/L 380 lb/day	1.7 mg/L 95 lb/d
(May 1 - May 31)	2.2 mg/L 190 lb/day	1.7 mg/L 95 lb/d
(June 1 - October 31)	1 mg/L 38 lb/day	1.7 mg/L 95 lb/d
(November 1 - March 31)	5.6 mg/L Report lb/day	1.7 mg/L 95 lb/d

Finally, there has been no demonstration in the 2024 Draft Permit that the organic nitrogen discharged causes or contributes to exceedances of water quality standards. Therefore, establishing the proposed TKN limit is arbitrary and capricious and should be eliminated from the Draft Permit.

Request: The District requests that the numeric TKN limit be removed from the Draft Permit.

b. The 1976 WQMP is based on speculative information about a WWTP that did not yet exist and relies on outdated information and is not relevant to the current condition of the Charles River

The TKN limits imposed in the Draft Permit were simply copied from the 1976 WQMP without addressing changes that have occurred in the nearly 50 years since this document was published. The most significant of these changes was the construction of the CRPCD Water Pollution Abatement Facility, which went online in 1980. The conditions that the TKN wasteload allocation were developed to meet are no longer present in the Charles River, but no attempt was made by EPA to evaluate whether the conditions that determined the need for a TKN limit are still present in 2025.

First, the District's WWTP *did not exist* at the time of publication. A portion of the wastewater from the region served by the district was treated at the Franklin STP. The TKN wasteload allocation was developed based on a 1985 flow projection of 6.7 mgd, derived from a 1974 facilities plan. Therefore, a wasteload allocation developed for a *speculative* WWTP (at the time) has no bearing on current conditions at the 5.7 mgd CRPCD WWTP. (see 1976 WQMP at 43)

Prior to the construction of the CRPCD WPAF, water quality conditions in the segment upstream of Mine Brook, where the Franklin STP discharged, were poor: "This is one of the three most severely polluted segments in the Charles River basin. Below the Milford STP are encountered depressed D.O. (minimum less than 1.0 mg/L), toxic ammonia concentrations (as high as 6.9 mg/L as N), extremely high nutrient concentrations (nitrate greater than 2.0 mg/L as N, total phosphorus as high as 5.0 mg/L), and bacterial contamination" (1976 WQMP at 23). The next downstream segment was impacted by the Franklin STP, and also experienced poor water quality ("Pollution of this segment is primarily from the Franklin STP, entering the main stem via Mine Brook. D.O. levels are depressed but remain above 2.0 mg/L. Nitrification occurs in this segment. Nutrient concentrations are high, and algal blooms occur." (1976 WQMP at 23). The segment downstream of Populatic Pond was reported to have better conditions, but there were no point sources to this segment at the time.

The 1976 WQMP indicates that "load allocations for total Kjeldahl nitrogen have been determined to insure that toxic ammonia concentrations will be eliminated from the Charles river". (1976 WQMP at 87). The TKN wasteload allocation would have been developed based on the existing water quality upstream of the discharge: toxic ammonia concentrations and high levels of nitrification contributing to low dissolved oxygen conditions. These conditions have

since been improved significantly through the implementation of ammonia and nutrient limitations on upstream dischargers. The current ammonia concentrations upstream of the discharge, as reported in Appendix B, range between 0.055 and 0.1 mg/L – a factor of ten lower than the conditions reported in the 1976 report and well below acute and chronic water quality criteria. The TKN treatment level projected to be required at the CRPCD WWTP in 1976 is simply not necessary to meet water quality standards in the Charles River today, nearly 50 years later.

Finally, the District notes that the TKN wasteload allocation was based off of a projected design flow of 6.7 mgd. EPA cannot rely on a calculation based on flows from 1976 and an incorrect design flow to set a WQBEL. The reasonable potential to exceed water quality criteria must be recalculated based on the current facility design.

Request: The District requests that the 1976 WQMP no longer be used to establish permit limits in the Charles River basin because it relies on outdated water quality conditions and pre-dates the construction of the District's facility.

c. The nitrogen monitoring requirements are overly burdensome given the lack of evidence of a nitrogen impairment in the Charles River.

The Fact Sheet also correctly states, "typically phosphorus is the limiting nutrient triggering eutrophication in freshwater ecosystems and nitrogen in marine or estuarine systems." In addition, the Fact Sheet states, "that more data are necessary to determine whether there is reasonable potential for nitrogen discharges from the CRPCD to cause or contribute to violations of the narrative nutrient criteria in the receiving water." As acknowledged, the Charles River watershed is densely populated including many POTWs and industrial discharges, as well as urban runoff. Although we agree that more data is necessary to understand the nitrogen loads to the watershed, we would contend that monthly sampling of the suite of nitrogen compounds would be sufficient to assess CRPCDs contribution to the overall watershed load and that the permit should be revised to reflect this.

Request: The District requests that nitrogen monitoring be removed from the Draft Permit, or in the alternative, that the frequency be reduced to monthly year round. In addition, the District requests that if the permit is administratively continued after the five-year term expires, that all nitrogen reporting requirements be discontinued as EPA will have collected sufficient data for any future permitting requirements.

Response 4

This comment includes three requests: (1) remove the TKN limit because there is no reasonable potential, (2) remove the TKN limit because the 1976 WQMP is outdated, and (3) remove or reduce the nitrogen monitoring requirement. EPA has responded to these below.

Regarding the TKN limit, EPA has reevaluated the wasteload allocation found in the 1976 WQMP based on this comment. Upon review, EPA agrees with the comment that the TKN limit is designed to protect the Charles River from ammonia toxicity. More

specifically, the WLA is designed to prevent an in-stream ammonia-nitrogen concentration exceedance of 1.0 mg/L which is described as being toxic to certain desirable species of fish. Although the WQMP does not describe the ambient water temperature upon which the analysis is based, EPA presumes that this target concentration is based on a critical summer temperature to ensure the river is not toxic under critical summer temperatures as well as the rest of the year. Correspondingly, the Draft Permit already includes an ammonia limit of 1.0 mg/L during the summer months (June 1 through October 31) and less stringent requirements during the cooler months when ambient temperatures would allow a higher concentration of ammonia without being toxic. Based on this comparison, EPA finds that the ammonia limits based on the most updated ammonia criteria ensure that the permit is already fully protective of ammonia toxicity throughout the year. Therefore, the addition of a TKN limit is unnecessary and has been removed from the Final Permit.

Regarding nitrogen monitoring, this proposed monitoring frequency is the standard level of monitoring that EPA considers necessary for this size facility to adequately characterize the discharge throughout the year. Given the many municipal and industrial sources of wastewater from the District (including 4 Towns as Co-permittees) and the large size of the treatment facility (5.7 MGD), EPA finds that weekly monitoring from April through October and monthly monitoring from November through March is necessary to full characterize the discharge and will inform future permitting decisions both at this facility and throughout this watershed. More specifically, EPA finds that the weekly monitoring in the warmer months (compared to monthly in the cooler months) is necessary given the increased impact of nitrogen downstream in the warmer months.

Comment 5

Ambient River Sampling for Phosphorus. Part 1.G.1 of the Draft Permit requires the collection of monthly total phosphorous samples from April through October in even numbered years at a location in the receiving water upstream of the Facility. The Draft Permit requires that the results shall be submitted to EPA and the State and shall be conducted in conformance with an approved Quality Assurance Project Plan (QAPP).

While a permit may require a permittee to monitor its own discharges, it is the responsibility of the USEPA or MassDEP to collect and analyze baseline in stream water quality – this is NOT the responsibility of the permittee and should not be a cost to ratepayers. This requirement places additional burden on funds and resources of the District, and the Agency oversteps its authority. *See Nat. Res. Def. Council, Inc. v. U.S.E.P.A.*, 859 F.2d 156, 170 (D.C. Cir. 1988) ("EPA can properly take only those actions authorized by the CWA—allowing, prohibiting, or conditioning the pollutant . . . . Just as EPA lacks authority to ban construction of new sources pending permit issuance, so the agency is powerless to impose permit conditions unrelated to the discharge itself.").

Request: The District requests that the ambient phosphorus requirement be removed from the permit. If the agency requires this sampling by the permittee, a QAPP should not be required,

because the District already collects ambient data for the WET testing requirements, and these data are already used by EPA for the reasonable potential analysis calculations. The need for an EPA and MassDEP approved sampling plan and QAPP should be deleted from this permit. In addition, if ambient phosphorus monitoring is required, the described study design seems unnecessarily complex. No rationale is given for sampling only after 72 hours of dry weather. This restriction makes it impossible to schedule sampling resources in advance, and planned sampling may be "rained out" at the last minute. Conducting sampling monthly regardless of weather conditions provides a more comprehensive understanding of the range of phosphorus that can be expected in the water column, which allows for more realistic assessment of water quality.

Response 5

In general, 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). Specifically, EPA may include ambient phosphorus monitoring in the permit if EPA finds that ambient phosphorus monitoring data is necessary to characterize the background condition in order to ensure the discharge will not violate water quality standards downstream in the future.

However, based on this comment, EPA reevaluated the need for this phosphorus ambient monitoring requirement. While EPA maintains that it does have authority to impose such requirements (when necessary), EPA finds that this phosphorus ambient monitoring requirement is unnecessary in this case. EPA typically requires ambient phosphorus monitoring in permits where the background concentration may impact the future calculation of the effluent limit and may result in a more stringent limit in the future to continue to protect water quality standards downstream. However, in this case, the phosphorus limit is already established at the target criterion (0.1 mg/L as described on page 27 of the Fact Sheet) and would not be impacted regardless of the upstream phosphorus concentration. Therefore, this monitoring requirement as well as the corresponding QAPP have been removed from the Final Permit.

Although the ambient phosphorus monitoring requirement has been removed from the permit, in response to the comment EPA clarifies that the requirement to sample only after 72 hours of dry weather was intended to characterize the receiving water at times when it is less impacted by stormwater and more representative of critical 7Q10 low

flow conditions when the discharge of phosphorus is expected to have a greater impact downstream. EPA recognizes that this requirement poses challenges in scheduling ambient sampling but considers it important to characterize the receiving water under critical conditions (to the extent practicable) to best inform future permitting decisions.

Comment 6

Per- and polyfluoroalkyl Substances ("PFAS"). Part I.A.1 and Page 31 of the Fact Sheet and Paragraph 9 of the Draft Permit require quarterly sampling of PFAS Analytes (Method 1633) and Adsorbable Organic Fluorine (Method 1621) in the Facility's influent and effluent, measured in ng/L (parts per trillion), as well as quarterly sampling of PFAS Analytes in the sludge, measured in ng/g using Method 1633. Although the District understands the widespread issues associated with PFAS, as the District does not use PFAS compounds and does not itself generate PFAS impacted wastes, it is concerned with (1) the potential cost for this monitoring and the burden placed upon ratepayers and (2) the potential implication that discharge of PFAS impacted wastewater could constitute a violation of state and federal law.

It is worth noting that wastewater treatment facilities such as the District, which serve the public good through the treatment of wastewater and do not otherwise use or produce PFAS compounds, should be exempt from liability under state and federal law for the ancillary discharge of wastewater impacted by PFAS (for example, liability protections similar to the Water Systems PFAS Liability Act, S. 1430).

The District and other treatment facilities passively receive PFAS through source water and have never participated in or profited from the production or use of PFAS. By imposing the costs for monitoring on the District, the EPA punishes good actors and not the parties responsible for the PFAS contamination, those that profited from the production, or those that use of PFAS in their products. EPA and MassDEP should focus its sampling requirements on manufacturers and users of PFAS and require the same to fund monitoring studies.

a. In regard to cost, the Draft Permit requires quarterly sampling at substantial cost. The District understands that similar sampling at treatment facilities across the United States routinely detects low levels of PFAS compounds in influent and effluent. As the District does not use or produce PFAS compounds while treating and cleaning millions of gallons of waste each year, imposing this additional cost with little to no environmental benefit is unnecessary. There are only a few labs currently certified to do PFAS sampling and the cost of sampling has been reported from $350 to $500 per sample, not including blanks or AOF sampling, or on the order of $6,000 to 10,000 year. Because of the ubiquitous nature of PFAS the collection of samples requires a detailed protocol to avoid sample contamination. Sampling performed to date at treatment facilities around the nation have found PFAS analytes to fall within a relatively narrow range of concentrations for the influent, effluent and biosolids, with limited seasonal variation evident.

Request: Because of the cost and nature of PFAS sampling, limited availability of labs to perform the testing, and the extremely low detection limits, if the PFAS monitoring requirements are not deleted, the District suggests testing twice per year as a more reasonable request. If after two years of sampling concentrations are relatively consistent, sampling could be moved to once per year. This proposed tiered program would provide good baseline information of PFAS in the system but also limit wasteful and costly sampling and analysis. The permit should be written to allow the reduced sampling overtime. A similar approach has been included in the Capital Region Water's NPDES permit in Harrisburg, PA issued in November 2024.

b. Regarding Adsorbable Organic Fluorine monitoring and reporting, Method 1621 is a draft test method designed to capture all organic fluorine compounds in the wastewater. This method is still under development by EPA's Engineering and Analysis Division (EAD), which indicated it is not approved for CWA compliance monitoring. The multi-laboratory validation study has not yet been performed on this method. Again, it appears that EPA is using its permitting authority in Massachusetts to test methods and requirements that are not yet instituted across the nation, unfairly burdening Massachusetts' communities.

Request: This proposed requirement should be removed from the permit unless and until an approved method is promulgated and a national criterion is established. In the alternative, if Adsorbable Organic Fluorine monitoring requirements are not deleted, the District suggests testing twice per year as a more reasonable request. If after two years of sampling concentrations are relatively consistent, sampling could be moved to once per year. This proposed tiered program would provide good baseline information of Adsorbable Organic Fluorine in the system but also limit wasteful and costly sampling and analysis.

c. Part 1.E.6 of the permit would require annual PFAS sampling of many types of industrial discharges (not just the three Significant Industrial Users in the current Industrial Pretreatment Program) using Method 1633. Given the size of the service area and the types of services targeted (e.g., car washes) and the ambiguity in the language e.g., "any other known or suspected sources of PFAS" – this will be a burdensome and costly process of sampling and analysis.

Request: To limit the burden on the District and its industry, the District suggests a reduction in the frequency of sampling if data collected fall within the expected range. In addition, the District requests that the overly broad and vague statement "any other known or suspected sources of PFAS" be removed from the list.

Lastly, we note that MA DEP has recently commenced a $1,000,000 program to sample all 114 POTWs across the Commonwealth for PFAS in the influent, effluent and biosolids. This action is, in effect, acknowledgement that this work does fall within the purview of the regulatory agencies. Requiring the District to also perform this work is duplicative and unnecessary.

Response 6

This comment objects to the PFAS and AOF monitoring for several reasons. EPA has responded to each below.

First, the commenter expresses concern regarding the source of PFAS being from outside the WWTF (industrial users) and suggests that the focus of PFAS monitoring should be on the manufacturers and users of PFAS (i.e., source reduction), rather than requiring the WWTF to bear the cost. While EPA agrees that the WWTF process itself is not likely a significant source of PFAS, many sanitary and/or industrial users who discharge to the WWTF are likely sources. Moreover, EPA notes that the WWTF itself is not the source for virtually all pollutants being discharged, but nevertheless the Permittee must ensure (through treatment, monitoring, etc.) that the discharge of those pollutants does not violate water quality standards. EPA acknowledges that the concern regarding PFAS includes issues beyond the scope of this NPDES permit and EPA has been taking steps to address some of those issues, as outlined in EPA's PFAS Strategic Roadmap[6]. As suggested in the comment, much work still needs to be done beyond the scope of this permit related to studying the impact to the environment, the impact to human health, and addressing source control of PFAS compounds. EPA agrees that further reducing the source of PFAS is a necessary aspect of addressing the overall environmental impact, but not the only aspect. Given that PFAS has been in use since the 1940s and has been used in a wide array of consumer and industrial products, mere source reduction will not fully resolve the persistent impact of PFAS chemicals already in the environment. Therefore, in addition to source reduction EPA must also assess the potential water quality impact of PFAS discharges, such as from WWTFs. Therefore, EPA finds that monitoring PFAS from WWTFs to be appropriate and one part of the overall effort to understand the fate and transport of PFAS through the treatment process and from there into the environment via point source discharges and sewage sludge disposal.

Second, the commenter expresses concerns regarding the cost to conduct the PFAS sampling and analysis as well as the availability of labs that can conduct the analyses. Regarding the cost associated with the monitoring and analyses, EPA acknowledges that there are costs and other resources that Permittees must allocate to comply with permit requirements. As with all water quality monitoring, EPA must balance the need for additional data with the associated cost and has decided that this monitoring is necessary to properly inform future permitting decisions that will be necessary to ensure the continued protection of water quality standards. Regarding lab availability, EPA is aware of a number of labs throughout the country, including some in Massachusetts, that are already equipped to perform Method 1633. EPA expects that more labs will become equipped as more permits require use of this method. Currently, NPDES permits for over 100 POTWs in MA and NH require use of this method and lab availability has not been a significant issue. Given that the requirement in this permit does not take effect until 6 months after the effective date of the permit, EPA does not

[6] Available at: https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024

anticipate any major obstacles related to this Permittee finding an appropriate lab to conduct the analysis.

Third, the commenter suggests that EPA incorporate an "off ramp" to reduce or remove PFAS and/or AOF sampling if initial results are below a certain level. Given the inherent variability of wastewater and the lack of historic PFAS data from this facility and the industrial users, EPA considers the level of sampling prescribed in the Draft Permit to be necessary to fully characterize the discharge during this permit term. Therefore, 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 or remove PFAS monitoring depending on updated information and water quality criteria and the Permittee will have the opportunity to comment on any sampling requirements at that time and to submit any data or information supporting such comments.

Fourth, the comment suggests that the AOF Method 1621 has not been approved for CWA compliance monitoring or multi-lab validated. EPA disagrees and notes that Method 1621 was finalized in January 2024 after the multi-lab validation process was completed. More information can be found at: https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas.

EPA also uses this opportunity to clarify the distinction between the development of an analytical method and the promulgation of that method in 40 C.F.R. Part 136. As stated in 40 C.F.R. § 122.44(i)(v)(B): "In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136…, monitoring shall be conducted according to a test procedure specified in the permit…." *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 C.F.R. part 136… the applicant may use any suitable method…."). If Part 136 included analytical methods for these PFAS and AOF pollutants, the permit would automatically require the use of those methods. However, given that there are not any relevant methods in Part 136, the permit must clearly specify which analytical method to use. EPA confirms that both Method 1621 and Method 1633 have been finalized and are suitable for use in NPDES permits so long as they are clearly specified in the permit.

Fifth, the comment requests that the requirement to sample "any other known or suspected sources of PFAS" be removed from the list of industrial users that must sample for PFAS because it is overly broad and vague. EPA disagrees and considers that this requirement is necessary to ensure that samples are collected from any known or suspected source throughout the collection system that may not otherwise be included in the list. EPA notes that this non-specific language is intended to benefit the Permittee by allowing the Permittee to require sampling of *any* industrial user that is a "known" or "suspected" source of PFAS, rather than just industrial users specifically listed by EPA. It is likely that the Permittee has more knowledge than EPA about their own industrial users, and limiting the sampling requirement to only industrial user categories named by

EPA may not capture the full picture of PFAS entering the WWTF via industrial users. The more comprehensive data gathered via this requirement may be beneficial to the Permittee now or in the future, if the facility decides or is required to take action to reduce PFAS in its discharge. EPA also notes that if the Permittee does not "know" or "suspect" that other industrial users discharge PFAS, the permittee need not sample any other sources beyond those specifically listed in the permit. Also see Response 8 for more details regarding the ability for the Permittee to pass PFAS monitoring costs on to industrial users.

Lastly, the comment suggests that a sampling program from MassDEP is duplicative with the PFAS monitoring in this permit. MassDEP and other entities may pursue ongoing PFAS sampling efforts to better understand PFAS discharges. EPA contacted MassDEP regarding the scope of the sampling program described in this comment and determined that the program is designed to sample all 114 NPDES POTWs throughout Massachusetts "at least once, and twice for as many POTWs as possible." In comparison, the permit requires quarterly sampling throughout the life of the permit to provide a robust dataset to characterize the influent, effluent and sludge from the POTW as well as to track long-term trends. EPA appreciates the efforts of MassDEP to conduct a broad sampling effort which will capture at least some data from all POTWs but does not agree that this program will provide EPA with the same level of robust, site-specific information needed to ensure the continued protection of water quality standards in the next permit reissuance. In any case, EPA notes that the results of this study may used to satisfy the PFAS monitoring requirement in the permit for the calendar quarter they are taken if they comply with the relevant permit requirements.

Comment 7

Adaptation Planning. The Adaptive Planning requirements in the draft Permit under paragraph C. Operation and Maintenance of the Treatment and Control Facilities, would require the District and its co-permittees to: (1) Identify vulnerable critical assets at the wastewater treatment plant and in the sewer systems within 24 months; (2) Perform an Adaptive Measures Assessment within 36 months; and Develop an Implementation and Maintenance Schedule within 48 months. The draft permit also proposes regular progress reporting for these activities.

Although the District believes that Adaptive Management Planning provides important information for the District, the adaptation planning requirements are beyond the appropriate scope for an NPDES permit renewal. Planning for events that may occur decades from the expiration of this Permit uses limited funds with no environmental benefit. *See* 40 C.F.R. § 122.41 (proper operation and maintenance requires sufficient measures "to achieve compliance with the conditions of *this* permit");

Nat. Res. Def. Council, Inc. v. U.S.E.P.A., 859 F.2d 156, 169 (D.C. Cir. 1988) (overturning "EPA's imposition of non-water quality permit conditions").

For decades, wastewater treatment facility designers and regulatory authorities in New England have used the New England Interstate Water Pollution Control Commission's *Guides for the Design of Wastewater Treatment Works (Technical Report #16, or TR-16)*, as a helpful resource for designing and upgrading existing wastewater treatment plants. Originally developed in 1962, the guide has been updated over the years as technology has progressed. The most recent 2011 edition was revised in 2016 to reflect resiliency and adaptation considerations.

The 2011 edition and all previous editions recommended that treatment plants and pump stations be designed to (1) provide for uninterrupted operation of all units during conditions of a 25-year (4% annual chance) flood and (2) be placed above or protected against the structural, process, and electrical equipment damage that might occur in a 100-year (1% annual change) flood elevation. It was never intended that the treatment facility would be capable of maintaining water quality standards during extreme (> 25-year recurrence) flooding or rainfall events, but that the plant would be protected during a 100-year event so that when the flood waters receded the plant would be resilient and could resume treatment. In addition, the hydraulic design of the facilities were designed to allow peak hourly flows to be passed through the plant with the receiving water at the 25-year flood elevation.

The 2016 revisions to the 2011 edition of TR-16 now recommends new facilities within an existing treatment plant and new wastewater treatment plants should (1) provide for uninterrupted operation of all units during conditions of a 100-year (1% annual chance) flood and (2) be placed above, or protected against, the structural, process, and electrical equipment damage that might occur in an event that results in a water elevation above the 100-year (1% annual chance) flood. Critical equipment should be protected against damage up to a water surface elevation that is 3-ft above the 100-year elevation. Non-critical equipment should be protected against damage up to a water surface elevation that is 2-ft above the 100-year elevation.

The most appropriate time for facilities to assess resiliency concerns is during the facilities planning process for system upgrades when new facilities and existing facilities can be fortified as a part of ongoing improvements.

In addition, the subjective requirements of the planning leaves the permittee open to criticism and claims of non-compliance and to arbitrary and inconsistent enforcement as well as third party challenges. The District has two primary concerns with this proposed adaptive management requirement in the NPDES permit: lack of EPA authority and the singling-out of Massachusetts facilities.

First, the NPDES permit is not the appropriate vehicle to produce this report, and EPA does not have the authority to include Adaptive Planning in an NPDES permit. Although the Facility and its interceptor system are subject to regulation as to discharges, the CWA's NPDES program regulates just that, discharges, not the facility (or facilities) that discharge. *Nat. Res. Def. Council, Inc. v. U.S.E.P.A.*, 859 F.2d 156 (D.C. Cir. 1988) The CWA does not provide EPA with the authority to dictate how a facility addresses floods and major storm events. For example, the

CWA included language that provides permittees some level of protection against an "Act of God," however, these permit requirements would eliminate this protection.

Second, Massachusetts remains one of three states not delegated authority to oversee the NPDES program. As such, it appears that EPA, through its primacy, is including Adaptation Planning requirements in Massachusetts permits as a "trial balloon" and is unfairly putting the burden on the District (and other Massachusetts' communities) to vet the requirements and develop solutions for the balance of the country. This is clear in the last sentence of Appendix C which states, "Therefore, EPA will require Adaptation Plans be developed under NPDES permits for all wastewater treatment plants in Massachusetts and New Hampshire." A nationwide approach to adaptive planning for wastewater plants needs to be developed, transparently with appropriate rulemaking and stakeholder input (as it was for water plants).

Request: The District request that Adaptive Planning provisions be removed from the final permit because EPA lacks authority to impose them and a nationwide approach should be developed instead of imposing such provisions on individual permittees through the NPDES program.

Response 7

The proposed Adaptation Planning requirements have been removed from the Final Permit. In response to the concerns raised, 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 I.A.1 of the 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,[7] and the Federal Emergency Management Agency (FEMA) requires a hazard mitigation plan when municipalities apply for certain types of non-emergency disaster assistance.[8] At the state level, the Commonwealth of Massachusetts has developed the Massachusetts Municipal Vulnerability Preparedness Program, which awards communities with funding to complete vulnerability assessments and develop action-oriented resiliency plans.[9] Additionally, many municipalities and regional organizations have developed their own local flood risk tools and requirements.[10] As described in the Fact Sheet, the goal of the Draft Permit requirements was to reduce and/or eliminate noncompliant discharges that

[7] *https://www.epa.gov/system/files/documents/2022-09/Federal%20Flood%20Risk%20Managment%20Standard%20.pdf*.
[8] https://www.fema.gov/emergency-managers/risk-management/hazard-mitigation-planning/requirements
[9] https://www.mass.gov/municipal-vulnerability-preparedness-mvp-program
[10] *See*, *e.g.,* Charles River Watershed Association *Charles River Flood Model*¸ https://www.crwa.org/watershed-model; Franklin Regional Council of Governments South River Risk Assessment, https://frcog.org/redefining-our-river-corridors/.

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 Permit intended to generate and accordingly will accomplish the Draft 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 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.").

As stated above, removal of these provisions does not alter the requirement for the Permittee to ensure compliance with the permit limits.[11] 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 guidance[12] 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 8

Water Quality Certification PFAS Sampling of Significant Industrial Users ("SIUs"). Pursuant to Paragraph (a) of the Water Quality Certification, MassDEP proposes that beginning the first full calendar quarter following 6 months after the effective date of the final version of the Draft Permit, the District must commence annual monitoring of all Significant Industrial Users for PFAS analytes discharging into the Facility using Method 1633.

Request: The District requests that this be clarified to allow the District to require the sampling be conducted by any SIUs as part of the District's IPP program.

Response 8

EPA recognizes that permittees have regulatory avenues to require that monitoring be conducted by SIUs and the annual monitoring requirement may be implemented

[11] 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).

[12] For example: https://www.epa.gov/waterutilityresponse/flood-resilience-basic-guide-water-and-wastewater-utilities.

through one of those regulatory avenues. Discharges to the wastewater collection system are controlled through local limits, pretreatment programs, industrial discharge permits, and sewer use ordinances. In its IPP, the District may require that individual industrial users conduct PFAS monitoring and provide the results to the District at their expense. Thus, the District may transfer all or part of the PFAS-associated monitoring cost to the industrial user, as it deems appropriate. To make this clear, the permit at Part I.G.6 already says "the Permittee shall **collect or require** annual sampling each calendar year for the following types of industrial discharges into the POTW" (emphasis added). Therefore, additional language in the Final Permit is not necessary and this comment does not result in any change.

Related to this comment, the Final Water Quality Certification issued by MassDEP and included in the final NPDES permit states, "MassDEP has determined that it is necessary that beginning the first full calendar quarter following 6 months after the effective date of the final version of the 2024 draft NPDES Permit ("final NPDES Permit"), the Permittee shall **collect, or require to be collected**, annual samples of discharges from all Significant Industrial Users.

Comment 9

Potential Alternative Permit Conditions - Section 5.7 of Fact Sheet. EPA notes in Section 5.7 of the Fact Sheet that considered a variety of alternative permit conditions and monitoring requirements in lieu of narrative requirements but did not include such requirements in the Draft Permit as it understands the MassDEP permit would include such narrative requirements. While the District believes that the alternative permit conditions discussed by EPA in Section 5.7 are not appropriate for a NPDES permit, are beyond EPA's authority to impose and would be unduly burdensome in light of the requirements of the Draft Permit, which adequately protect water quality in the Charles River, as MassDEP included narrative requirements in Paragraph 9 of the MassDEP permit and Paragraph (c) of the Water Quality Certification, the alternative permit conditions are therefore unnecessary and should not be included in the Draft Permit.

Request: The District notes that based on the above, the alternative permit conditions discussed in Section 5.7 of the Fact Sheet are unnecessary and should not be included in the Draft Permit.

Response 9

Upon consideration of the comments received, EPA is not including the potential alternative permit conditions discussed in Section 5.7 of the Fact Sheet in the Final Permit. EPA clarifies that these potential alternative permit conditions were monitoring conditions, not water quality-based effluent limitations (WQBELs), and are not necessary to protect water quality standards regardless of the content of MassDEP's 401 certification of the Draft Permit. In the development of the Draft Permit, EPA conducted a thorough reasonable potential analysis on all pollutants of concern (*i.e.*, all pollutants identified in the past five years of monthly Discharge Monitoring Reports [DMRs] and in the most recent permit application) using all available information to ensure that all pollutants of concern were either already consistently below levels that may violate

applicable water quality standards (WQS) or received a protective WQBEL in the permit if the data demonstrated the reasonable potential to cause or contribute to an excursion of WQS. Some of EPA's pollutant-specific reasonable potential calculations for specific pollutants of concern are shown in Appendix B of the Fact Sheet, though a reasonable potential analysis was conducted for all pollutants identified in the DMRs and/or permit application. Additionally, the Whole Effluent Toxicity (WET) testing limitations in the permit operate as a surrogate for other potential sources of toxicity and the recent DMR data show consistent compliance with these WET limits.

Based on this information, EPA has determined that the Final Permit is fully protective of all applicable water quality standards based on all currently available information, and that the additional monitoring requirements discussed in Section 5.7 of the Fact Sheet are not necessary at this time. Similarly, the narrative water quality-based requirements that were included in previous iterations of this permit (*e.g.*, "The discharge shall not cause a violation of the water quality standards of the receiving waters") are also not necessary given EPA's determination that the limits in this Final Permit are sufficient to meet WQS, and thus are not included in this Final Permit as requirements based on CWA Section 301(b)(1)(C).

EPA additionally clarifies that the water-quality based effluent limits included in the Final Permit satisfy EPA's independent obligation under Section 301(b)(1)(C) of the CWA. EPA has also included the provisions in the State's 401 certification in the Final Permit as required by Section 401 of the Act. EPA recognizes that the Supreme Court in *San Francisco v. EPA* held that "end-result requirements" are not authorized under Section 301(b)(1)(C) of the Act. EPA confirms that it is not relying on the 401 certification provisions to satisfy its Section 301(b)(1)(C) obligations. EPA includes section 401 conditions in NPDES permits pursuant to section 401(d), which requires that any condition of a section 401 certification "shall become a condition on any Federal license or permit." EPA's inclusion of section 401 conditions in NPDES permits does not imply EPA endorsement or approval. Indeed, Federal agencies cannot approve or disapprove the substance of a State's section 401 certification conditions. See 40 CFR 121.8; 88 FR 66618. Any challenge to certification conditions related to an EPA-issued NPDES permit must be made through applicable state procedures, and not through the EPA's Environmental Appeals Board (EAB). 40 CFR 124.55(d).

Comment 10

Other Minor questions, comments and revisions to information and requirements of the Draft Permit.

Co-Permittee addresses are incorrect. Correct addressed are as follows:

Town of Medway
45B Holliston Street
Medway, MA 02053

Town of Bellingham
215 Depot Street
Bellingham, MA 02019

Response 10

These addresses have been corrected in the Final Permit.

Comment 11

In numerous locations throughout the permit and fact sheet the term "Water Pollution Abatement Facility" is used incorrectly. The District's legal name is Charles River Pollution Control District. If referring to the plant, wastewater treatment plant or water reclamation facility would be more appropriate.

Response 11

This comment has been noted for the record. The name of the facility has been changed on the cover page of the Final Permit.

Comment 12

Chlorination. The Draft Permit indicates that the District must "minimize the use of chlorine while maintaining adequate bacterial control," the Draft Permit is not clear if this requires chlorination outside of the time period from March 1 – November 30 when bacteria (e. coli) sampling is required. EPA should clarify if chlorination is required in the winter months (December through February).

Response 12

EPA clarifies that if the wastewater treatment plant is not required to meet the bacteria limit in a given month (*e.g.*, December through February), chlorination is not necessary.

Comment 13

The Draft Permit includes the requirement to report on any interruption or malfunction of the chlorine dosing system. The District questions why this is necessary as it appears irrelevant if sampling shows that bacteria and TRC meet the permit limitations otherwise. EPA should clarify the need for the reporting or delete the requirement.

Response 13

Given the limited data collected by 2/day grab samples of TRC and 3/week grab samples of *E. coli*, a potential interruption or malfunction of the chlorine dosing system may result in violations of the TRC or *E. coli* water quality standards that may not necessarily be apparent if such violations occur only between sampling events. Additionally, if WQS violations are detected via the 2/day grab samples of TRC and 3/week grab samples of *E. coli,* additional data regarding any interruptions or malfunctions of the chlorine dosing system may be helpful in determining the cause of the violation and/or preventing additional violations. Therefore, reporting any interruption or malfunction of the

chlorine dosing system may provide additional insight regarding a potential water quality violation.

Comment 14

Part I. H - Page 28: Submittals to DEP – WET. The District currently submits WET test reports to MassDEP electronically via email. The District will continue electronic submittals unless otherwise directed by MassDEP.

Response 14

As stated in Part I.H.7 of the permit, all WET test reports must be sent according to the instructions below unless otherwise notified.

> Duplicate signed copies of all WET test reports shall be submitted to the Massachusetts Department of Environmental Protection, Division of Watershed Management, at the following address:
>
> Massachusetts Department of Environmental Protection
> Bureau of Water Resources
> Division of Watershed Management
> 8 New Bond Street
> Worcester, Massachusetts 01606

Comment 15

The District understands that each Town will submit their respective electronic reports through CDX and the same will not be included as an attachment to the District's DMR (Part 1, Page 17, #3). EPA and MassDEP should clarify this in the Draft Permit.

Response 15

EPA acknowledges that this is accurate. EPA finds that this is sufficiently clear in the permit and notes that each Co-permittee is assigned their own unique permit number for this reporting.

Comment 16

The District requests clarification that the dissolved oxygen sample type be a "grab or meter" as in prior permits to allow for sampling with a portable meter, which is the District's current practice.

Response 16

Based on the current practice, this has been changed to "meter" in the Final Permit. If the practice changes to collecting grab samples in the future, the Permittee may indicate "Grab" in the appropriate DMR at that time.

Comment 17

Due to weather and other potential scheduling issues including the coordination with the 3rd party contract laboratory, the District cannot guarantee that the WET testing will be done

during the same week in quarter due to the contract lab's schedule and holidays. Generally, the testing is done around the same time. The District request the language is changed to "during the same month each time of calendar quarters…"

Response 17

EPA does not agree to expand this requirement from the "same week" to the "same month" because this may impact the consistency of the data over time. However, as noted in Part I.A.1 footnote 1, EPA notes that occasional devisions in the timing of WET testing for the reasons described in this comment are allowable as part of the routine sampling program.

Comment 18

Comments on the Fact Sheet:

The description of the treatment facility on page 15 of the Fact Sheet (Section 3.1.1) should be replaced as follows:

> The Charles River Pollution Control District (CRPCD) is an advanced wastewater treatment plant providing treatment to domestic, commercial, and industrial wastewater.
>
> The plant was expanded and upgraded in 2000 to increase its flow capacity from 4.5 to 5.7 MGD. The upgrade included an anoxic biological selector for filamentous bacteria control, two fine bubble diffused aeration basins to increase the aeration capacity, four 12-cloth disk filters to supplement the existing sand filters, and an upgrade to the plant's electrical system. In 2003, new piping and pumps for the ferric chloride, ferrous sulfate, and lime systems were installed, and a hydrated lime mixing system was installed to replace the quick lime slaking system. In 2014 the District underwent a comprehensive upgrade. This upgrade included replacement of most of the process equipment (pumps, blowers), replaced surface aerator tanks with hyperbolic mixer aerators, converted the traveling bridge sand filters to a 5 micron cloth diamond traveling bridge filter, replaced the existing 10 micron cloths on the disk filter with 5 micron cloths, eliminated the use of chlorine gas, and replaced many failing architectural, HVAC and electrical components including all roofs, doors, and air handling units and a new Supervisory Control and Data Acquisition (SCADA) system. In 2023, the District converted from its hydrated lime system to a calcium carbonate slurry.
>
> The unit processes and equipment at the plant consist of a Parshall flume, two automatic bar racks, four influent pumps (lead/lag/standby/standby), two aerated grit tanks ferric chloride can be added for additional phosphorus control, two primary clarifiers, an anaerobic bioselector, two fine bubble aeration trains, two mixer aerator trains, , four secondary clarifiers, four cloth disk filter basins, and one diamond traveling bridge filter . Solids are captured on the filter cloth and backwashed to the headworks, and the filtered water continues to the

chlorine contact chamber. The effluent is disinfected in two chlorine contact chambers (sodium hypochlorite), dechlorinated with sodium bisulfite, passes down effluent cascade steps, and flows 3,375 feet through Outfall 001 to the Charles River.

Ferrous Chloride is added at the headworks for odor control. Calcium Carbonate is added into the returned activated sludge (RAS) for pH control. Ferric Chloride is added into the distribution box upstream of the secondary clarifiers for phosphorus control.

The facility receives approximately 40,000 to 60,000 gallons of septage per day from its co- permittee communities as well as 7 other communities. There are two septage tanks, which are filled and batch-discharged by gravity into the headworks. The facility checks the pH of each septage delivery.

Primary sludge is pumped to a gravity belt thickener. Secondary sludge flows to the wet well and is pumped to the gravity thickener with polymer added to aid thickening. The 7% solids sludge is held in two sludge tanks and then trucked to the incinerator at the Upper Blackstone Clean Water facility in Millbury, MA. The mass of sludge shipped for incineration in 2023 was 1,744 dry metric tons.

The Fact Sheet at page 35 indicates that within 180 days of the Permit's effective date, the District must submit a description of proposed changes to the industrial pretreatment program. However, this requirement is not in the Draft Permit. The District requests that EPA clarify if the above requirement is an obligation of the final permit.

Page 19 of fact sheet: 5.1.1. The District notes that there were only 6 exceedances of the 12 month rolling average in the review period. The District requests that EPA update this information and also update the same in the table in Appendix A – Monitoring Data Summary on page A-1.

The District requests that in Appendix B of Fact Sheet that EPA carry out decimal points for C_s on ammonia and phosphorus. This will improve the District's ability to understand EPA calculations and rationale.

Response 18

Although the Fact Sheet cannot be changed after the Draft Permit has been public noticed, the corrections to the description of the treatment facility are noted here for the record.

The District questioned why the Fact Sheet references a permit requirement to describe any changes to the pretreatment program within 180 days which was not actually in the Draft Permit. The specific language was mistakenly included in the Fact Sheet, and this is not a permit requirement.

EPA confirms that that there were in fact six, rather than seven, exceedances of the rolling average flow limit during the monitoring period. This correction is noted here for the record.

Regarding Attachment B of the Fact Sheet, Column C_s represents the median concentration for the receiving water just upstream of the facility's discharge derived from the whole effluent toxicity (WET) testing data during the review period. For phosphorus and ammonia in May, there was no upstream data available, so we consider these values to be zero. The values for ammonia for April, June through October, and November through March are as shown, 0.075, 0.055, and 0.1, respectively.

B. Comments from Douglas Martin, P.E., Town of Franklin, MA:

Comment 19

In Part I.A.1, Your proposed effluent flow during July, August, and September of a monthly flow limit of 4.5 mgd, this is unacceptable! The Town of Franklin and the other co-permittees are allotted capacity at the CRPCD based on a flow rate of 5.7 mgd, which the plant was reconstructed and updated to. This cost to the Town of Franklin and the other co-permittees was in excess of $25 million dollars that the rate payers in Franklin are still paying for. Reducing the flow rate in the summer effectively reduces the flow for the entire year. With the growth seen in the Town of Franklin and other co-permittee communities due to housing developments and MBTA communities' regulations, the full design of the plant (5.7 mgd) is needed. Furthermore, the monthly average flow for the District over the last 6 years, shows 4 exceedances of the summer time monthly average of 4.5 mgd. Additionally, the Town of Franklin and the other co-permittees have spent millions of dollars on I&I over the last permit period. This I&I work has not only been done on the CRPCD collection system but also in all towns that fall under this permit.

Response 19

EPA acknowledges the challenges faced by the District and the Co-permittees related to the effluent flow limit. See Response 1 above for details on the flow limit and a possible pathway toward the approval of an increased flow limit for the period of July through September.

Comment 20

In Part I.A.1, the increased monitoring requirements and measurement frequency will add a considerable cost to the operation of the CRPCD. Why is EPA requesting this increased monitoring requirements and measurement frequency? I do not see the value in the additional work. The cost of this will need to be passed onto the ratepayers. The Town of Franklin has raised sewer rates over 50% over the last couple of years to reconstruct and update the CRPCD plant, I & I projects, and to meet current permit requirements. While we recognize that testing is needed to verify compliance with permit limits, the testing that is required for effluent characteristics that do not have effluent limitations associated with them, like Nitrate and

Nitrite, is an added cost to collect data. This data is better collected by the EPA via studies so that it can be documented to better inform future permit conditions, if required. At the very least, the Town of Franklin would like to see a slow rollout of the monitoring requirements and measurement frequency so that the cost can be better allocated and increased year over year over the permit life cycle.

Response 20

The commenter questions the need for monitoring requirements in Part I.A.1 of the Permit. Compared to the Permittee's prior permit issued in 2014,[13] the following parameters have new monitoring requirements: Total Nitrogen (Total Kjeldahl Nitrogen and Nitrate + Nitrite); PFAS Analytes; and Adsorbable Organic Fluorine. *See* Permit Part I.A.1. For parameters carried over from the 2014 Permit, the monitoring frequency has not changed.

As stated in Section 2.4.1 of the Fact Sheet:

> *The monitoring requirements included in this permit have been established to yield data representative of the Facility's discharges in accordance with CWA §§ 308(a) and 402(a)(2), and consistent with 40 CFR §§ 122.41(h), (j), and (l)(9), 122.43(a), 122.44(i) and 122.48. The Draft Permit specifies routine sampling and analysis requirements to provide ongoing, representative information on the levels of regulated constituents in the discharges. The monitoring program is needed to enable EPA and the State to assess the characteristics of the Facility's effluent, whether Facility discharges are complying with permit limits, and whether different permit conditions may be necessary in the future to ensure compliance with technology-based and water quality-based standards under the CWA.*

Additional rationales for particular monitoring requirements are in the Fact Sheet (*e.g.* PFAS is described in Fact Sheet Part 5.1.13) and below in this Response. The commenter describes that certain monitoring requirements are required for effluent characteristics that do not have corresponding effluent limitations. EPA reiterates that 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). EPA has authority to impose monitoring requirements "regardless of whether pollutant discharges are restricted by an effluent limit." *E.g. In re Town of Concord*, 16 E.A.D. 514, 541-542 (EAB 2014).

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

[13] Available at: https://www3.epa.gov/region1/npdes/permits/2014/finalma0102598permit.pdf

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.").

The Draft Permit includes new monitoring requirements for nitrogen, PFAS compounds, and AOF and are typical for newly issued municipal permits of this size. The monitoring data for nitrogen compounds will provide additional information on the fate of nitrogen through the treatment process and the impact to the Charles River Basin that flows into Boston Harbor. During the next permit issuance, EPA will consider whether any of these monitoring requirements may be decreased.

As noted in the Fact Sheet, monitoring for PFAS and AOF is being required for all municipal permits in order to characterize the 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. EPA recognizes that this new PFAS monitoring requirement entails increased cost. However, EPA maintains that the monitoring frequency should be at least quarterly to ensure that there are adequate data to assess the presence and concentration of PFAS in facility discharges. These data will enable EPA to obtain comprehensive and representative information on the sources and quantities of PFAS discharges and EPA will use these data in the future to inform its actions. Regarding sludge, in EPA's judgment, PFAS monitoring of influent, effluent and sludge is necessary to better understand the fate and transport of PFAS throughout the treatment process. Additionally, these data may be used to inform future decisions regarding appropriate sludge disposal practices.

Total nitrogen monitoring is also new and is necessary as described in Section 5.1.10.1 of the Fact Sheet.

The commenter asserts that EPA is better positioned than permittees to collect monitoring data. EPA disagrees. EPA issues hundreds of permits across MA and NH and most (if not all) of these permits require monitoring. EPA is not in a position to collect monitoring data at all of these facilities at the regular intervals specified in the permits in order to characterize each discharge for a wide variety of pollutants of concern. Furthermore, EPA maintains that it is appropriate for a permittee to collect its own

monitoring data because they are better able to ensure each sample is properly representative of the discharge and they have better access to collect such samples at regular intervals to capture a more robust dataset. Without such robust data for pollutants without effluent limitations, EPA would be forced to make much more conservative assumptions with respect to these pollutants which may trigger the need for many more effluent limitations to ensure water quality standards are protected.

The commenter requests a "slow rollout" of the monitoring requirements, citing cost concerns. EPA does not consider a slow rollout appropriate because the data collection is necessary to ensure the discharge is protective of water quality and to inform EPA's permitting decisions in the next permit reissuance.

Comment 21

Part I.C.1., requires the Permittee and Co-permittee(s) to develop an Adaptation Plan to address major storm and flood events as part of their operation and maintenance planning for the part of the WWTS and/or sewer systems that they each own and operate. The Town of Franklin has 23 sewer lift stations that are located in low elevations and are inherently at risk to flooding and other impacts due to their location. We understand that sewer systems are critical in helping protect human health and the environment and providing critical services to the areas that they serve. So we agree with the need to conduct sewer system adaptation planning, in fact the Town of Franklin has already started this process of "Adaptation Planning" at some of our sewer system locations. However, the time frame of the different components does not allow for adequate time to initiate the necessary funding and procurement processes. We request that each component be extended by 12 months.

Response 21

See Response 7.

C. Comments from Jesse Riedle, Town of Bellingham, MA:

Comment 22

Part I.A.1:

By requiring the reduction of allowable flow rates in the summer months, negative impacts would be experienced throughout the entire year. Notably, Bellingham has experienced substantial new growth in recent years. Combined with new MBTA Communities regulations, we anticipate this recent growth to expand exponentially. Limiting available sewer capacity at the Charles River Pollution Control District (CRPCD) will cause tremendous setbacks with these new requirements for growth and expansion. Each of the co-permittees involved spent a substantial amount on funding I&I improvements to mitigate issues associated with treatment in the district.

Response 22

EPA acknowledges the challenges faced by the District and the Co-permittees related to the effluent flow limit. See Response 1 above for details on the flow limit and a possible

pathway toward the approval of an increased flow limit for the period of July through September.

Comment 23

Part I.A.I:

Increased monitoring requirements and frequency will add a considerable cost to operations at CRPCD. We do not see the value in this added requirement and feel that the burden will have to be passed on to the rate payers. Bellingham is split with sewer collection, as half of the system is tied to CRPCD. Additionally, only a percentage of water users are connected to the sewer infrastructure. Because of this, the expensive requirements detailed under this draft permit will have a much larger impact on those serviced by municipal sewer. This issue is further compounded by the percentage of our population on fixed income, with Bellingham classified as a disadvantaged community. The Town recently instituted a 35% rate increase to the sewer fee structure. This increase, while necessary to sustain the sewer operating budget, was a difficult hurdle for ratepayers to support. This increase was necessary to pay for items such as I&I improvements and construction upgrades to the CRPCD. To consider additional, costly, modifications will only add undue burden to Bellingham's ratepayers.

Response 23

See Response 20.

Comment 24

The Permittee and Co-permittee(s) are required to develop an Adaptation Plan to address major storm and flood events as part of their operation and maintenance (O&M) planning for the WWTS and/or sewer systems that they each own and operate. The Town of Bellingham currently has 11 sewer pump stations that are in low elevations and are inherently at risk of flooding and other impacts due to location. We understand that sewer systems are critical in helping protect human health and the environment and providing critical services to the areas they serve. We agree with the need to conduct sewer system adaptation planning, in fact the Town of Bellingham has already started this process of "Adaptation Planning" at some of our sewer system locations. The timeframe of the different components does not allow for adequate response to initiate the necessary funding and procurement processes. We request that each component be extended by 12 months.

Response 24

See Response 7.

D. Comments from Peter Pelletier, Town of Medway, MA:

Comment 25

In Part I.A.1, Your proposed effluent flow during July, August, and September of a monthly flow limit of 4.5 mgd, this is inappropriate. The Town of Medway and the other co-permittees are allotted capacity at the CRPCD based on a flow rate of 5.7 mgd, which the plant was reconstructed and updated to. This cost to the Town of Medway and the other co-permittees was more than $25 million dollars that the rate payers in Medway are still paying for. Reducing the flow rate in the summer effectively reduces the flow for the entire year. With the growth seen in the Town of Medway and other co-permittee communities due to housing developments mandate through Chapter 40B and the MBTA communities' regulations, the full design of the plant (5.7 mgd) is needed if not understated. Furthermore, the monthly average flow for the District over the last 6 years, shows 4 exceedances of the summer time monthly average of 4.5 mgd. Additionally, the Town of Medway and the other co-permittees have spent millions of dollars on I & I over the last permit period. This I & I work has not only been done on the CRPCD collection system but also in all towns that fall under this permit.

Response 25

EPA acknowledges the challenges faced by the District and the Co-permittees related to the effluent flow limit. See Response 1 above for details on the flow limit and a possible pathway toward the approval of an increased flow limit for the period of July through September.

Comment 26

In Part I.A.l, the increased monitoring requirements and measurement frequency will add a considerable cost to the operation of the CRPCD. Why is EPA requesting this increased monitoring requirements and measurement frequency? I do not see the value in the additional work. The cost of this will need to be passed onto the ratepayers. While we recognize that testing is needed to verify compliance with permit limits, the testing that is required for effluent characteristics that do not have effluent limitations associated with them, like Nitrate and Nitrite, is an added cost to collect data. This data is better collected by the EPA via studies so that it can be documented to better inform future permit conditions, if required. At the very least, the Town of Medway would like to see a slow rollout of the monitoring requirements and measurement frequency so that the cost can be better allocated and increased year over year over the permit life cycle.

Response 26

See Response 20.

Comment 27

Part I.C.l., requires the Permittee and Co-permittee(s) to develop an Adaptation Plan to address major storm and flood events as part of their operation and maintenance planning for the part of the WWTS and/or sewer systems that they each own and operate. We understand that sewer systems are critical in helping protect human health and the environment and providing critical services to the areas that they serve. We agree with

the need to conduct sewer system adaptation planning. However, the time frame of the different components does not allow for adequate time to initiate the necessary funding and procurement processes. We request that each component be extended by 12 months.

Response 27

See Response 7.

E. Comments from James McKay, Town of Millis, MA:

Comment 28

In Part I.A.1, Regarding the effluent flow during July, August, and September being limited to a monthly flow limit of 4.5 mgd. The Town of Millis and co-permittees are allocated capacity at the CRPCD based on the permitted plant design capacity of 5.7 mgd, which was upgraded and completed in 2016. The cost to the Town of Millis and co-permittees was in excess of $25 million dollars, which the rate payers in Millis are still paying back. Reducing the flow rate in the summer effectively reduces the flow for the entire year and with the growth seen in the Town of Millis and co-permittee communities due to development and MBTA communities regulations, the full design of the plant (5.7 mgd) is needed. The monthly average summer flows for the District exceeded 4.5 mgd only 4 times over the last 6 years. The Town of Millis and co-permittees continue to fund I/I plans to reduce extraneous flows to the treatment plant and have spent millions of dollars over the last permit period.

Response 28

EPA acknowledges the challenges faced by the District and the Co-permittees related to the effluent flow limit. See Response 1 above for details on the flow limit and a possible pathway toward the approval of an increased flow limit for the period of July through September.

Comment 29

In Part I.A.1, the increased monitoring requirements and measurement frequency will add a considerable cost to the operation of the CRPCD. These costs will need to be passed to the permitees rate payers. The Town of Millis has had to absorb and pass on the costs to reconstruct and update the CRPCD plant, I & I projects, increased O & M, System mapping and to meet current permit reporting requirements. While testing is needed to verify compliance with permit limits, the testing that is required for effluent characteristics that do not have effluent limitations associated with them, like Nitrate and Nitrite, is an added cost to collect data. This data is better collected by the EPA via studies so that it can be documented to better inform future permit conditions, if required.

Response 29

See Response 20.

Comment 30

Part I.C.1., requires the Permittee and Co-permittee(s) to develop an Adaptation Plan to address major storm and flood events as part of their operation and maintenance planning for

the part of the WWTS and/or sewer systems that they each own and operate. The Town of Millis has 5 public and 5 private sewer lift stations that are located at low elevations and may be at risk of flooding and other impacts due to their location according to the new mitigation requirements. Town of Millis understands that sewer systems are critical in helping protect human health and the environment and providing critical services to the areas that they serve and that the sewer system adaptation planning is necessary but feels the time to complete the components is not adequate and requests that each component be extended by a year or more.

Response 30

See Response 7.

F. Comments from Philip D. Guerin, Massachusetts Coalition for Water Resources Stewardship:

The Massachusetts Coalition for Water Resources Stewardship (MCWRS) is a non-profit organization representing the interests of municipalities, districts and commissions in the world of wastewater, stormwater and drinking water. Members include municipal, district and commission wastewater, stormwater and drinking water utilities, engineering consultants, legal firms and stormwater coalitions.

MCWRS appreciates the opportunity to comment on the draft NPDES permit for the Charles River Pollution Control District (CRPCD) and its co-permittees Town of Franklin, Town of Medway, Town of Millis, and Town of Bellingham. MCWRS offers the following for your consideration:

Comment 31

Adaptation Planning: As stated in comments submitted on numerous recent draft NPDES permits for wastewater treatment facilities, MCWRS believes that adaptation planning requirements are not appropriate for inclusion in a NPDES permit. Adaptation planning does not fall under the category of Operations and Maintenance, has no place in a five-year permit, is not related to a discharge, cannot be applied solely to Massachusetts and New Hampshire permittees and would be better received if it were offered through a funded federal program as directed by Congress. Climate change planning is more appropriate when communities are undertaking significant planning efforts or when planning for major renovations to wastewater facilities. When designing renovations and major upgrades to wastewater facilities, engineers already follow protocols established by NEIWPCC that include updated provisions for flood damage prevention. (see CRPCD comment letter). The requirement for adaptation planning should be stricken from this permit.

Response 31

See Response 7.

Comment 32

PFAS: PFAS monitoring as required in the draft permit imposes a significant cost burden on CRPCD and its ratepayers. Each sample analyzed for PFAS costs $350-$500 and with trip blanks and other quality control samples the financial impact quickly multiplies. PFAS sampling should be limited to twice annually for the initial two (2) years with results allowing less frequent (annual) analysis thereafter.

The draft permit also proposes that CRPCD take quarterly grab samples of influent and effluent and test for Adsorbable Organic Fluorine (AOF), using Method 1621, at the same time as samples are grabbed for PFAS Analytes. Method 1621 is a draft test method designed to capture all organic fluorine compounds in the wastewater. This method is still under development by EPA's Engineering and Analysis Division (EAD), which indicated it is not approved for CWA compliance monitoring. The multi-laboratory validation study has not yet been performed on this method. In addition, Adsorbable Organic Fluorine is not a pollutant and has never been identified as a cause of water quality violations in any surface water. Rather, Adsorbable Organic Fluorine is a surrogate measure for PFAS. While it may prove useful as a better way to measure PFAS, the burden of proving its utility in this regard should not fall upon NPDES permittees. EPA should do its own research on the effectiveness of Adsorbable Organic Fluorine as a surrogate parameter for PFAS and spare permittees the costs and responsibility for performing this testing. This proposed requirement should be removed from the permit.

Response 32

See Response 6.

Comment 33

Revised Ammonia Limits and Reasonable Potential Analysis. As shown in the Fact Sheet, Appendix B, the reasonable potential analysis conducted for parameters with an existing WQBEL incorrectly uses the current WQBEL as the effluent concentration in the formula. Instead, EPA should have used the existing facility performance to determine if a more stringent effluent limit is required. This impacts the April, May, and June through October analyses, and results in EPA setting a more stringent monthly average WQBEL for ammonia in the April and May timeframes. This permitting approach is inconsistent with the Clean Water Act and EPA guidance in the *NPDES Permit Writers Manual* and the *Technical Support Document for Water Quality-based Toxics Control*.

Appendix B clearly, and correctly, states that reasonable potential analysis should use the 95th percentile for data sets with over 10 data points and the highest value for data sets under 10 data points. However, it then goes on to say that where an existing WQBEL is in place the analysis must be adjusted and the current WQBEL should be used rather than actual effluent data. The justification for this adjustment, as noted, is concern that use of actual data might show no reasonable potential and therefore suggest that a WQBEL is not needed. This concern is heedless given anti-backsliding provisions and the fact that reasonable potential analysis is based on current controls being in place. A result of no reasonable potential means that with current controls in place there is no reasonable potential of water quality violations for the contaminant being analyzed. The methodology being employed does a disservice to permittees,

like CRPCD, by requiring them to do even more controls (and under a compliance deadline) when more controls are not needed. It also works counter to the intent of the Clean Water Act in that it dissuades a permittee from operating its facility to perform better than permit limits by ignoring actual effluent test results in favor of a higher WQBEL. Doing better than necessary results in further punishment rather than reward.

Comments provided by CRPCD provide much greater detail on this matter and offer the correct analysis and resulting WQBELs for ammonia which remain as in the current permit. Unfortunately, a review of recently issued NPDES permits show this same flawed reasonable potential analysis to be in use. EPA and MassDEP need to revise this approach going forward and correct those NPDES permits that used the flawed analysis that resulted in more stringent effluent requirements.

Response 33

See the third item in Response 3 above.

Additionally, this comment suggests that EPA's approach dissuades permittees from operating its facility to perform better than permit limits. EPA disagrees and highlights that EPA's approach to this issue would result in the same revised effluent limits (if necessary to protect water quality standards based on updated information) regardless of how far below the limits the facility is operating. EPA also considers that permittees who operate well below their permit limits may find that a revised permit limit is still well above their level of operation and that no further process changes are necessary. In this case, the CRPCD facility is operating well below their ammonia limits in April and May so the more stringent ammonia limits in this permit reissuance do not require them to make any process changes.

Comment 34

Temperature Data for Establishing Ammonia water quality criteria: The draft permit, Fact Sheet page 23-24, uses river water temperature data obtained from CRWA rather than EPA default temperatures in setting water quality criteria for ammonia in April and May. EPA usually relies on its default temperature values (April - 20C, May - 20C) unless site specific data is available. Instead, this draft permit used very limited data collected 2 miles upstream of the CRPCD outfall. This data is neither site specific nor particularly meaningful as an indicator of monthly water temperatures.

River water temperatures exhibit daily and seasonal variability and are heavily influenced by weather conditions, proximity to other surface and groundwater inflows and watershed conditions such as impervious surfaces and tree cover. A single monthly sample is not representative of anything. A recent spring rainfall can drive water temperatures downward and if the measurement is taken at that time, it would show a lower temperature. A few days of warm weather and sunshine can drive the temperature upward and that would also be reflected in a measurement taken at that time. Selecting the highest temperature from a data set of five provides information with no context. Is that high value an outlier or reflective of some very odd occurrence? If the CRWA data is to be used at least take an average of the

limited data and not the maximum value. Otherwise, utilize the EPA default values as there is no site-specific data to use.

Response 34

See the fourth item in Response 3 above.

Additionally, this comment suggests that EPA should have used default temperature values of 20° C in April and May given the limited data available. EPA acknowledges that the temperature data are limited, and based on this fact, has applied them in a reasonably conservative manner by setting the maximum values of 14° C (April) and 21.2° C (May) as the critical temperatures. With limited upstream data, EPA must be conservative to ensure the limits are protective under all actual temperatures throughout the month (which are typically higher toward the end of each month). While EPA confirms that the use of the maximum temperatures is appropriate in this case, EPA notes that the default temperature of 20° C would have resulted in a more stringent limit in April (2.5 mg/L rather than 3.8 mg/L) and a slightly less stringent limit in May (2.6 mg/L rather than 2.4 mg/L). While the use of the default temperature may also have been reasonable (as is done in many other permits), it is not clear that this approach would have been preferred in this case by the Permittee or other interested parties. In any case, this comment does not result in any change to the Final Permit.

Comment 35

Total Kjeldahl Nitrogen limit: The draft permit establishes a limit on Total Kjeldahl Nitrogen (TKN) (Part I.A.1 and the Fact Sheet, Page 24) of 1.7 mg/L and 95 lb/day year-round. This new limit is apparently based on the "discovery" of a waste load allocation for TKN mentioned in a 1976 Water Quality Management Plan. Somehow this WLA had been missed for the first 45 years of operation of the CRPCD facility. The WQMP of 1976 was published before the CRPCD facility was even designed. That plan likely relied on data collected 3-5 years earlier making it some 54 years old in terms of information. It may have mentioned a WLA but that was for a hypothetical treatment facility that was undesigned and certainly lacked operational data. The 1976 WQMP may be an interesting historical document, but it is irrelevant in 2025. The Plan belongs in a museum and should not be used to inform water quality limits today. The Charles River is one of the most studied rivers in Massachusetts, if not the nation. There is no lack of data or information on water quality in the Charles. The river has drastically changed for the better since 1976 and there is no need to rely on grossly outdated information in order to make fair and meaningful NPDES permit decisions in 2025. The TKN limit has no credible basis and should be removed from the permit.

Response 35

See Response 4.