

**BEFORE THE  
ENVIRONMENTAL APPEALS BOARD  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C.**

In re: City of Marlborough, Massachusetts  
Westerly Wastewater Treatment Facility      NPDES Appeal No. \_\_\_\_\_  
  
NPDES Permit No. MA0100480

**PETITION FOR REVIEW**  
by  
**OARS, Inc.**

Stephen M. Leonard  
Cronin & Leonard  
56 Nonesuch Road  
Weston MA 02493  
Tel. 617-697-4069  
E-Mail: [sleonard@croninleonard.com](mailto:sleonard@croninleonard.com)

Attorney for the Petitioner:  
OARS, Inc.  
23 Bradford Street  
Concord, MA 01742  
Tel. 978-369-3956  
E-Mail: [office@oars3rivers.org](mailto:office@oars3rivers.org)

Dated: November 24, 2021

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- |   |  |
|---|--|
| 1 | Assabet River TMDL (without  |
| 2 | Integrated List of Waters Excerpts and Comment Letters (Massachusetts Year 2016 Integrated List of Waters (excerpt); OARS comment letter thereon; Draft Massachusetts Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle (excerpt); OARS comment letter thereon.) |
| 3 | OARS Water Quality Monitoring Program, Final Report 2020 (excerpt)   |
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## INTRODUCTION

Pursuant to 40 C.F.R. § 124.19, OARS, Inc. (“OARS”) hereby petitions the Environmental Appeals Board for review of NPDES Permit No. MA0100480 (“Final Permit”), which was issued to the City of Marlborough (“Permittee”)<sup>1</sup> for its Publicly Owned Treatment Works (“POTW”) on October 25, 2021,<sup>2</sup> by the U. S. Environmental Protection Agency, Region 1 (“Region 1”). That Final Permit is part of the Administrative Record.<sup>3</sup>

This POTW discharges directly into the Assabet River, which is listed as impaired, is subject to a 2004 Total Maximum Daily Load (TMDL) for Total Phosphorus (Attachment 1),<sup>4</sup> and currently fails to meet its water quality standards.

OARS’ primary objection to the Final Permit is that it contains very substantial changes from the Draft Permit in the effluent discharge limits for phosphorus, the key nutrient driver of significant eutrophication in the Assabet River and the focus of the 2004 TMDL. These changes make the phosphorus effluent limits much less stringent than those in the prior permit, which has been in effect since 2005. OARS had no notice whatsoever that these material changes to the Draft Permit were being contemplated and had no opportunity to comment on them, which it would have done vigorously since the changes will allow significantly greater loading of phosphorus into the river than has been occurring over the past decade, thereby threatening to reverse the improvements in the river’s eutrophic condition over that same period. Furthermore,

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<sup>1</sup> Since this Petition challenges permit conditions only in Part A of the Final Permit, the co-permittee (Town of Northborough) is not involved in this permit challenge. Pursuant to p. 1 of the Final Permit, Northborough is a co-permittee only for Parts B, C, and D.

<sup>2</sup> OARS received notification of the issuance of this Permit one day later on October 26, 2021.

<sup>3</sup> An electronic document produced by Region 1 containing the Final Permit, Response to Comments, Draft Permit, and Fact Sheet has been posted online at:

<https://www3.epa.gov/region1/npdes/permits/2021/finalma0100480permit.pdf>

<sup>4</sup> This 2004 Assabet River TMDL for Phosphorus has been posted online at:

<https://www.mass.gov/doc/final-nutrient-tmdl-report-for-the-assabet-river/download>

these surprise permit changes in the phosphorus effluent limits directly violate the explicit findings and mandates of the TMDL, have not been factored into the 401 water quality Certification the state issued based on the different effluent limits in the Draft Permit, and violate the state's anti-degradation regulation.

Of greatest concern to OARS is that just at a time when some progress has been made in reducing eutrophic conditions in the Assabet River, as shown by removal of some segments from the state's Integrated List of Waters List [Attachment 2] and OARS Water Quality Monitoring Program [Final Report 2020, Biomass section, Attachment 3], this Permit allows significantly greater total phosphorus discharges that will make it more difficult to finally achieve the river's designated water quality standards.

The preferred relief being sought by OARS is a remand of this Final Permit to the Region with a directive to (a) open a public comment period for the purpose of receiving comments from OARS<sup>5</sup> and other interested parties<sup>6</sup> on these proposed changes to the POTW's phosphorus effluent limits and (b) seek a proper state 401 certification based on these new and substantially less stringent limits. If the EAB chooses not to remand to Region 1 for the purpose of opening such a comment period, OARS seeks full review by the Board of its claims, set forth below, that these phosphorus discharge limit changes directly violate the TMDL, have no valid 401 Certification to support them, and violate the state's anti-degradation regulation.

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<sup>5</sup> In addition to legal objections to these less strict phosphorus discharge limits, OARS comments would include a number of compelling policy arguments that the Region might be persuaded by.

<sup>6</sup> OARS has reason to believe that if the comment period were to be reopened, comments – both legal and policy-based – opposing these significantly less stringent phosphorus limits would be forthcoming from other interested parties. In the past, the Town of Stow; the Sudbury, Assabet and Concord Wild and Scenic River Stewardship Council; and U.S. Fish & Wildlife Service have provided comments on adverse aspects of previous Assabet River NPDES permits.

## **THRESHOLD PROCEDURAL REQUIREMENTS**

1. OARS submitted comments on the Draft Permit in a letter dated August 28, 2020.

OARS comments are attached as Attachment 4 and are incorporated by reference herein. Those comments are also included in Region 1's Response to Comments as comments 42-51.

Therefore, pursuant to 40 C.F.R. § 124.19(a)(2) OARS is entitled to appeal this Final Permit.

In addition, the Petitioner has standing to petition for review of the Permit, as it is owns property abutting the Assabet River in Stow and is directly affected by the water quality conditions of the river. It also has standing in its capacity as a Massachusetts nonprofit corporation whose purpose in its Articles of Organization is, *inter alia*, to “work toward the protection, improvement and preservation of the Assabet River, Concord River, and Sudbury River, and their tributaries and watersheds for the purposes of public recreation, water supply, and wildlife habitat.”

2. This petition is being timely filed on November 24, 2021, when it was received by the Board via electronic filing. This is less than 30 days after October 26, 2021, when OARS was served notice of the issuance of this Final Permit.

## **IDENTIFICATION OF CONTESTED PERMIT CONDITIONS**

Pursuant to 40 C.F.R. 124.19, OARS hereby identifies the following contested conditions in the Final Permit.

OARS is contesting the following changes made to the effluent limits for phosphorus in the Draft Permit.

The Draft Permit<sup>7</sup> contains the following effluent limits for phosphorus:

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<sup>7</sup> As noted above, the Draft Permit is found in the electronic document produced by the Region at <https://www3.epa.gov/region1/npdes/permits/2021/finalma0100480permit.pdf> The Draft Permit can be found beginning on p. 150 of 313.

<b>Effluent Characteristic</b>	<b>Effluent Limitation</b>			<b>Monitoring Requirements<sup>1,2,3</sup></b>	
	<b>Average Monthly</b>	<b>Average Weekly</b>	<b>Maximum Daily</b>	<b>Measurement Frequency</b>	<b>Sample Type<sup>4</sup></b>
Total Phosphorus (April 1 – October 31)	0.1 mg/L	---	---	1/week	Composite
<u>Interim Limit</u>					
Total Phosphorus <sup>10</sup> (November 1 – March 31)	1 mg/L	---	---	1/month	Composite
Total Phosphorus (November 1 – March 31)	0.2 mg/L	---	---	1/month	Composite

The Final Permit contains the following effluent limits for phosphorus:

<b>Effluent Characteristic</b>	<b>Effluent Limitation</b>			<b>Monitoring Requirements<sup>1,2,3</sup></b>	
	<b>Average Monthly</b>	<b>Average Weekly</b>	<b>Maximum Daily</b>	<b>Measurement Frequency</b>	<b>Sample Type<sup>4</sup></b>
Total Phosphorus (April 1 - October 31)	2.4 lb/day Report mg/L	---	Report lb/day Report mg/L	1/week	Composite

<b>Effluent Characteristic</b>	<b>Effluent Limitation</b>			<b>Monitoring Requirements<sup>1,2,3</sup></b>	
	<b>Average Monthly</b>	<b>Average Weekly</b>	<b>Maximum Daily</b>	<b>Measurement Frequency</b>	<b>Sample Type<sup>4</sup></b>
<u>Interim Limit</u>					
Total Phosphorus <sup>9</sup> (November 1 – March 31)	1.0 mg/L	---	Report mg/L	1/month	Composite
Total Phosphorus (November 1 – March 31)	4.8 lb/day Report mg/L	---	Report lb/day Report mg/L	1/month	Composite

## FACTUAL AND PROCEDURAL BACKGROUND

### *OARS, Inc. (OARS)*

OARS is a 501(c)(3) private non-profit watershed organization established in 1986 to protect, preserve, and enhance the natural and recreational features of the Assabet River and its tributaries and watershed.<sup>8</sup> OARS has over 800 members and operates a successful volunteer water quality and stream flow monitoring program under an EPA-approved Quality Assurance Project Plan (QAPP) which provides data to the EPA and state Department of Environmental Protection (MassDEP) through the EPA's WQX data system.<sup>9</sup> OARS runs a large annual river clean-up and a variety of educational programs, stakeholder consultations, canoe trips and other activities designed to foster enjoyment and good stewardship of the rivers. OARS currently owns a parcel of property abutting the Assabet River in the Town of Stow, Massachusetts. More information about the organization may be found on OARS website at [www.oars3rivers.org](http://www.oars3rivers.org). OARS has prepared a Memorandum to the Board (Attachment 5) which contains additional information salient to the factual and procedural background to this Petition.

### *The Assabet River*

The Assabet River begins in Westborough, Massachusetts, and flows northeast for 31 miles through the City of Marlborough and the towns of Northborough, Berlin, Hudson, Stow, Maynard, Acton and Concord before joining the Sudbury River to form the Concord River, which empties into the Merrimack River and, eventually, the Atlantic Ocean. *See map in*

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<sup>8</sup> In 2011 The Organization for the Assabet River, Inc., formally changed its name to OARS, Inc., to reflect the fact that it had expanded its activities to include the Sudbury and Concord rivers, as well as the Assabet.

<sup>9</sup> This information is used by MassDEP in developing the Integrated List of Waters pursuant to sections 303(d), 305(b) and 314 of the Clean Water Act. Excerpts of the current and proposed Lists and OARS comments on the drafts are in Attachment 2.

Attachment 6. The Assabet alone drains a 178-square mile watershed in the MetroWest region of Boston, Mass. It provides nearly forty percent of the flow of the Concord River during low-flow periods. The Concord River is the sole public drinking water supply of the Town of Billerica, Massachusetts.

There are four publicly owned wastewater treatment plants (“POTWs”) that discharge directly to the Assabet, in Westborough, Marlborough, Hudson, and Maynard. The plants stopped discharging raw sewage in the 1980s, which lead to significant improvements in river water quality and increases in public usage.<sup>10</sup> Since that time, the principal ecological and recreational concern with regard to the Assabet has been phosphorus concentrations in the river. As is discussed in detail in the OARS Memorandum in Attachment 5, excessive phosphorus leads to nuisance plant growth, bad odors, and degraded wildlife habitat and recreation generally. Federal, state and citizen interests have for many years focused on reducing phosphorous concentrations in the river. For these reasons, during low flow periods (generally the warmer months, when plants grow more quickly and when people are more likely to want to engage in “contact” recreation in the river), 80% of the water in the Assabet comes from the four POTWs.<sup>11</sup> And it has been determined that in certain summer months, 97% of the phosphorus loading in the river comes from the upstream municipal POTWs.<sup>12</sup>

In 2004 MassDEP produced a TMDL<sup>13</sup> for the Assabet River. Here are some of its key conclusions:

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<sup>10</sup> In addition, in 2000, the U.S. Army transferred 2,230 acres to the U.S. Fish and Wildlife Service to create the Assabet River National Wildlife Refuge, which encompasses 3.5 square miles located within the towns of Hudson, Maynard, Stow and Sudbury. The refuge borders the Assabet River.

<sup>11</sup> TMDL at p. 13.

<sup>12</sup> *Id.*

<sup>13</sup> The TMDL is posted online at: <https://www.mass.gov/doc/final-nutrient-tmdl-report-for-the-assabet-river/download> It is required by the Federal Clean Water Act, 33 U.S.C. 1251 *et seq.*, in order to implement the applicable water quality standards. The Act requires states to identify impaired waters

- “The river has been listed since 1998 on the Massachusetts 303d list and the Massachusetts 2002 Integrated List of Waters as impaired primarily for Nutrients and for Organic Enrichment/Low Dissolved Oxygen. These pollutants and stressors are indicators of a nutrient enriched, or eutrophied system. In freshwater, the primary nutrient known to accelerate eutrophication is phosphorous.” TMDL p. 4
- “Due to the high phosphorus loading from the four major POTWs and the effects of the impoundments, the Assabet River is experiencing abundant rooted macrophyte growth and frequent excessive accumulations of Lemna species (duckweed) which often cover the river’s surface, particularly in the slow moving reaches, embayments, and impoundments. Decay of dying duckweed causes odors and violations of dissolved oxygen standards. Excessive growths of both floating and rooted macrophytes are detrimental to primary and secondary contact recreation.” TMDL, pp. 15-16
- “To achieve the water quality goals embodied in this TMDL, stringent control of point source discharges of phosphorus from POTWs which discharge to the Assabet River will be needed in combination with a 90% reduction of sediment phosphorus loads. **The TMDL for meeting the water quality objectives, including a margin of safety, is removal of total phosphorus from POTW effluents to 0.1 mg/L during the growing season and a 90% reduction of phosphorus sediment flux.**” [Emphasis added.] TMDL, p. 8.
- “TMDLs must provide a margin of safety to address uncertainties in the technical analysis. \*\*\* Therefore, the Department believes effluent limits for total phosphorus of 0.1 mg/L at all POTWs are **necessary** as a component of the margin of safety.” [Emphasis added.] TMDL, pp. 40-41.

The “sediment phosphorus loads” referred to here are the result of historical releases of phosphorus to the river that are now in the river’s sediment, particularly in impoundments behind dams. Sediment flux refers to the movement of phosphorus into and out of the sediment that

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(Sec. 303(d)(1)(A)). The Assabet River is on the Massachusetts Integrated List of Waters (Category 5: “Waters Requiring a TMDL.” See Attachment 2. The Act further requires each state to: “establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load [i.e., the “TMDL”], for those pollutants which the Administrator identifies under section 304(a)(2) as suitable for such calculation. Such load shall be established at a level necessary to implement the applicable water quality standards.” (Sec. 303(d)(1)(C)) See also 40 C.F.R. 130.7(c): “Development of TMDLs and individual water quality based effluent limitations.”

occurs seasonally (in during the winter months and out during the warm aquatic plant “growing season”).

Because of uncertainty about whether reductions in these loads would be possible and/or effective, the TMDL proposed a “two-phased adaptive management approach” to dealing with the Assabet’s phosphorus problem. In the first phase, (a) an effluent discharge concentration limitation of 0.1 mg/L would be imposed on the POTWs and (b) studies would be undertaken to determine whether it was possible to control contributions of phosphorus from the river’s sediments (by dam removal, encapsulation, or dredging of impoundments) which might obviate the need for “lower permit limits” – that is, lower than 0.1 mg/L – in the NPDES permits issued in the second phase. Phase 1 was to be concluded and Phase 2 permits issued by 2009. OARS did not object to this two-phase approach.

Phase 1 NPDES permits were issued to the four POTWs (including to Marlborough) in 2005; they contained a 0.1 mg/L limit on phosphorus discharges from April to October (the growing season).<sup>14</sup> In addition, the 2005 permits required for all four POTWs that “the Permittee shall properly operate and maintain the phosphorus removal facilities in order to obtain the lowest effluent concentration possible.” See Footnote 14 to the Facility’s 2005 permit.

Since the Phase 1 permits were issued, no steps have been taken by the Assabet’s four POTWs or anyone else to remove the river’s major dams or otherwise remediate the sediment, and none are anticipated anytime soon. As a result, and as EPA states in the Fact Sheet, “The sediment phosphorus flux has not been reduced, as required in the 2004 Total Phosphorous TMDL.” Fact Sheet, p. 28.

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<sup>14</sup> This is considerably lower than the phosphorus limit in the permits that were formerly in place – 0.75 mg/L – a difference that, as the Assabet’s four POTWs all came into compliance, has resulted in some observable improvement in the river, though water quality standards have yet to be met.

However, by 2012, all four POTWs had completed upgrades to their treatment systems that allowed them to meet the TMDL's and the Phase 1 permit's common phosphorus discharge limit of 0.1 mg/L.

*EPA's Conclusions about Water Quality Status after Phase 1 POTW upgrades*

Region 1's 2020 Fact Sheet for the Facility's Draft Permit, at p. 27, is clear about the poor condition of the Assabet River it found after all four POTWs had made the facility improvements required by the TMDL and their Phase 1 permits:

The last of the four Assabet River wastewater treatment facility upgrades to achieve the 0.1 mg/L phosphorus limit was completed in early 2012. EPA conducted water quality sampling of the Assabet River during summer low flow conditions in 2012 to determine changes in water quality as a result of the treatment facility upgrades. The data indicate that the Assabet River is still severely impaired, including elevated concentrations of phosphorus with the highest concentrations occurring near the bottom, large quantities of plant biomass, and frequent occurrences of supersaturated dissolved oxygen levels with associated pH criteria violations.

The MassDEP also surveyed the river during the summer of 2012 to determine the extent of Duckweed growth in the impoundments. The survey confirmed levels of Duckweed in the Assabet River impoundments remain excessive. Consequently, the receiving water continues to exceed water quality standards.

Thus, in the absence of any sediment remediation, Region 1 concluded that resolution of the problem of phosphorus concentrations in the Assabet River would require further control of the release of phosphorus in discharges from the treatment plants on the river in the Phase 2 permits.

Unfortunately, the TMDL's schedule for implementing the Assabet's "two-phased adaptive management approach" has slipped. The second-phase permits that were to have been

issued in 2009 are the permits being drafted and issued now. The permit at issue in this appeal is the Phase 2 permit for the Marlborough Westerly Facility.

The drafts of all four Assabet River POTW permits, and the final Hudson, Maynard, and Marlborough permits have now been issued. Each of the drafts (including for Marlborough) and the final permits for Hudson and Maynard contain a warm weather phosphorus discharge concentration limit of 0.1 mg/L.

Now, however, for the first time, in issuing the Final Permit for Marlborough, the Region has issued a Phase 2 permit that does not contain a concentration-based discharge limit for phosphorus. Instead, in Marlborough's Final Permit, the discharge limit for phosphorus was switched to a load-based limit of 2.4 lbs/day without regard to the concentration of phosphorus being released or the discharge flow. This is a dramatic change, given that the permit does not include the footnote that was in Marlborough's Phase 1 permit directing it to "operate and maintain the phosphorus removal facilities in order to obtain the lowest effluent concentration possible." Now, instead of being required to "obtain the lowest effluent concentration possible," the plant would be permitted, during days when it is discharging at flows lower than its permitted limit, to discharge phosphorus at concentrations well over 0.1 mg/L.

There was absolutely nothing in any of the four Fact Sheets or the history of permitting of the Assabet's four POTWs to indicate that the Region was considering this change. The Region's about-face was apparently based on a single comment by the Permittee City of Marlborough. That comment appears in the Response to Comments section of the Final Permit's electronic document.<sup>15</sup> This is what it says:

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<sup>15</sup> The link to that electronic document is:  
<https://www3.epa.gov/region1/npdes/permits/2021/finalma0100480permit.pdf>

## **Comment 11**

### **Total Phosphorus**

The total phosphorus limits are based on the 2004 TMDL which established Waste Load Allocations (WLA) for each of the POTW discharges. The TMDL established mass loading (lbs./day) Load and Waste Load Allocations for all the phosphorus sources as summarized on page 42 of 104. The summer (growing season) allocation for the Marlborough Westerly POTW is 2.4 lbs./day. EPA Region 1 has issued numerous NPDES permits in New Hampshire that include total phosphorus limits that use mass only values for compliance with the concentration being “report”. We are not aware of anything in the Massachusetts Water Quality Criteria that would preclude issuance of mass only limits for total phosphorus as USEPA has done elsewhere. This approach would meet the water quality goals and provide greater flexibility to the Permittee to maintain compliance with the permit limits.

We request that the summer total phosphorus limit be changed to an Average Monthly limit of 2.4 lbs./day (Report mg/l). We request that the winter total phosphorus limit be changed to an Average Monthly limit of 4.8 lbs./day (Report mg/l).

Here is EPA’s response:

### **Response 11**

EPA has determined that the request to change the warm weather average monthly phosphorus limit to 2.4 lb/day and the cold weather average monthly phosphorus limit to 4.8 lb/day is reasonable. EPA confirms that the warm weather limit is in accordance with the mass-based limit outlined for the Facility in Table 10 of the Assabet TMDL.<sup>16</sup> Further, the warm weather limit of 2.4 lb/day corresponds to the current limit of 0.1 mg/L at the flow limit of 2.89 MGD (*i.e.*, 0.1 mg/L x 2.89 MGD x 8.34 = 2.4 lb/day) and, therefore, applying the warm weather mass-based limit of 2.4 lb/day would not violate anti-backsliding regulations. The cold weather mass-based limit of 4.8 lb/day corresponds to the proposed concentration-based limit of 0.2 mg/L at the flow limit of 2.89 MGD (*i.e.*, 0.2 mg/L x 2.89 MGD x 8.34 = 4.8 lb/day) and is much lower than the existing concentration-based limit of 1.0 mg/L, so it is also in accordance with anti-backsliding regulations. Therefore, the concentration-based limits from the Draft Permit will be changed to the aforementioned mass-based limits in the Final Permit. The Facility will also have a monitoring requirement for the monthly average and daily maximum of phosphorus concentrations year-round.

In addition to the fact that there was no warning whatsoever that the Region would consider abandoning its long-standing requirement for Assabet River NPDES permits of limiting the **concentration** of phosphorus discharges to the river, this change runs counter to all of the

TMDL's technical conclusions and regulatory determinations that the Region and MassDEP have consistently relied on and implemented over the past two decades since issuance of the 2004 TMDL.

*Impact of this change*

Switching from concentration-based phosphorus discharge limits to load-based limits, without regard to the discharge concentration or flow, and without a directive to operate to "obtain the lowest effluent concentration possible," deviates significantly from the TMDL and the entire prior history of the Assabet's POTW permits.

The TMDL states that the load limit of 2.4 lbs/day applies only at the design flow, not at lower flows. And as is shown by the Monitoring Data Summary at Appendix A of the Fact Sheet, the plant rarely discharges at flows as high as the design flow.

Using the data from this Monitoring Data Summary, OARS calculated what the mass loading of phosphorus would have been using the load-based discharge limits in this new permit. The average summer flow for the five-year period starting April 2015 (2.00 MGD) multiplied by the TMDL and 2005 permit concentration limit (0.1 mg/L) would result in an average daily load of 1.67 lbs/day. Changing to a limit of 2.4 lbs/day would represent **a permitted load increase of 44%.** See Attachment 5, OARS Memorandum, pp. 14-15.

#### **THE REGIONAL ADMINISTRATOR'S INADEQUATE EXPLANATION IN RESPONSE TO COMMENTS**

Pursuant to 40 C.F.R. 124.19(b), the regulation governing the contents of a Petition for Review, the petitioner "must provide a citation to the relevant comment and response and explain why the Regional Administrator's response to the comment was clearly erroneous or otherwise warrants review." The present case is a poor fit for this rule, since it is not the

Region's response to a comment by OARS that is in issue. But the Region did respond to a comment (which, of course, no other party had the opportunity to do) that is "relevant" to this proceeding – Comment 11 in the Response to Comments – which was submitted by the Permittee and that requests a switch from concentration-based to mass-based limits for phosphorus discharges. And the Region responded to that comment by changing the limit, a response that was both procedurally unlawful, *see Argument I. infra*, and "clearly erroneous," as is described below.

Here again are Comment 11 and the Region's Response 11.

### **Comment 11**

#### **Total Phosphorus**

The total phosphorus limits are based on the 2004 TMDL which established Waste Load Allocations (WLA) for each of the POTW discharges. The TMDL established mass loading (lbs./day) Load and Waste Load Allocations for all the phosphorus sources as summarized on page 42 of 104. The summer (growing season) allocation for the Marlborough Westerly POTW is 2.4 lbs./day. EPA Region 1 has issued numerous NPDES permits in New Hampshire that include total phosphorus limits that use mass only values for compliance with the concentration being "report". We are not aware of anything in the Massachusetts Water Quality Criteria that would preclude issuance of mass only limits for total phosphorus as USEPA has done elsewhere. This approach would meet the water quality goals and provide greater flexibility to the Permittee to maintain compliance with the permit limits. We request that the summer total phosphorus limit be changed to an Average Monthly limit of 2.4 lbs./day (Report mg/1). We request that the winter total phosphorus limit be changed to an Average Monthly limit of 4.8 lbs./day (Report mg/1).

### **Response 11**

EPA has determined that the request to change the warm weather average monthly phosphorus limit to 2.4 lb/day and the cold weather average monthly phosphorus limit to 4.8 lb/day is reasonable. EPA confirms that the warm weather limit is in accordance with the mass-based limit outlined for the Facility in Table 10 of the Assabet TMDL. Further, the warm weather limit of 2.4 lb/day corresponds to the current limit of 0.1 mg/L at the flow limit of 2.89 MGD (*i.e.*, 0.1 mg/L x 2.89 MGD x 8.34 = 2.4 lb/day) and, therefore, applying the warm weather mass-based limit of 2.4 lb/day would not violate anti-backsliding regulations. The cold weather mass-based limit of 4.8 lb/day corresponds to the proposed concentration-based limit of 0.2 mg/L at the flow limit of 2.89 MGD (*i.e.*, 0.2 mg/L x 2.89 MGD x 8.34 = 4.8 lb/day) and is much lower than the existing concentration-based limit of 1.0 mg/L, so it is also in accordance with anti-backsliding regulations. Therefore, the concentration-based limits from the Draft Permit will be

changed to the aforementioned mass-based limits in the Final Permit. The Facility will also have a monitoring requirement for the monthly average and daily maximum of phosphorus concentrations year-round.

#### **A. Comment 11 is Inaccurate and Misleading.**

In Comment 11, the Permittee states:

The TMDL established mass loading (lbs./day) Load and Waste Load Allocations for all the phosphorus sources as summarized on page 42 of 104. The summer (growing season) allocation for the Marlborough Westerly POTW is 2.4 lbs./day.

This simply ignores language in the table on TMDL page 42 that makes it clear that mass loading allocations are all “@ Permitted Flows.” The plain import of this language (and the universal understanding of those involved in development of the TMDL) is that the discharges from the POTWs to the Assabet River would be limited in the concentrations of phosphorus that they were permitted to discharge and that the total amounts of phosphorus they were permitted to discharge would be determined by (and capped at) the amount of phosphorus determined by applying the concentration permitted per liter to the volume being discharged. It was never intended that the permittees could discharge the maximum allowable mass “[something less than] Permitted Flows,” for example at 50% of permitted flows – or at 10%. That would simply be dumping 2.4 pounds of phosphorus in the river – yet that is what the change to the permit allows.

Next, in Comment 11, the Permittee states:

EPA Region 1 has issued numerous NPDES permits in New Hampshire that include total phosphorus limits that use mass only values for compliance with the concentration being “report”.

This is misleading. OARS has reviewed the recent permits Region 1 issued for New Hampshire. In 2020-21 there were four draft permits with TP concentration limits, two with TP load limits,

and one with both. There is no evidence that any of the waterbodies involved was as eutrophic as the Assabet and none was subject to a TMDL that required concentration-based phosphorus limits and an adaptive management approach based on reducing phosphorus discharge concentrations.

In Comment 11, the Permittee also states:

This approach would meet the water quality goals and provide greater flexibility to the Permittee to maintain compliance with the permit limits.

It is incorrect that “this approach” would meet water quality goals when those goals, as set out in the TMDL, include reducing phosphorus concentrations in the Assabet River. The comment clearly seeks a mass-based limit, but it is not clear that it seeks permission to discharge 2.4 lbs/day of phosphorus during the growing season regardless of the flow being discharged and regardless of the phosphorus concentration being discharged. But that is what the Permittee got, a result that is inconsistent with NPDES permitting generally, and especially in a case with a TMDL like the one for the Assabet River.

There is no explanation of the assertion that “[t]his approach . . . would provide greater flexibility.” If the Permittee has had difficulty meeting the concentration-based limits during the term of the present permit, or there are operational reasons that might lead to such a concern, this would have been the place to put them.<sup>16</sup>

## B. The Inadequacy of the Region’s Response

The Region’s Response 11 is seven sentences long. The first sentence is an introduction. The last two sentences announce the Region’s decision to grant the request and to impose a

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<sup>16</sup> According to the Fact Sheet at p. 28 there were only six phosphorus exceedances under the Permittee’s 2005 permit.

phosphorus concentration monitoring requirement. Three sentences – the second, third, and fourth – constitute the Region’s explanation for granting the Permittee’s request.

The first of these sentences states:

EPA confirms that the warm weather [load based] limit [requested] is in accordance with the mass-based limit outlined for the Facility in Table 10 of the Assabet TMDL.

That is incorrect, or at least significantly misleading. The mass-based phosphorus discharge limits of the type set forth in the Final Permit here are not “in accordance” with the phosphorus discharge limits in Table 10 of the TMDL. Here is Table 10.

**Table 10**  
**TMDL for Total Phosphorus**  
(minor POTWs not modeled in italics)

			POTW Effluent Limits Total Phosphorus, mg/L April 1 – October 31 <sup>1</sup>		POTW Effluent Limits Total Phosphorus, mg/L November 1 – March 31
POTW	NPDES	Design Flow, MGD	mg/L	lbs/day @ design flow	mg/L and lbs/day
Westborough	MA0100412	7.68	0.10	6.4	Optimize for particulate phosphorus removal and monitor and report for total and dissolved phosphorus concentration
Marlborough West	MA0100480	2.89	0.10	2.4	
Hudson	MA0101788	3.00	0.10	2.5	
Maynard	MA0101001	1.45	0.10	1.2	
<i>Powdermill Plaza<sup>2</sup></i>		---	N/A	N/A	
Middlesex School <sup>3</sup>	MA0102466	0.052	0.50	0.22	0.50 mg/l and 0.22 lb/day
<i>MCI Concord<sup>4</sup></i>	MA0102245	0.3	0.50	1.25	0.50 mg/l and 1.25 lb/day

<sup>1</sup> Includes a margin of safety of 6.1 pounds per day

As can be seen, the “lbs/day” limits on discharges of Total Phosphorus allowed during the summer growing season are “@ design flow.” That is, they apply whenever the POTWs are discharging at design flow. They do not apply, as the limits in the Final Permit would, at less than design flow.

The second of these three sentences is a calculation showing that if the Facility discharges during the growing season at a concentration of 0.1 mg/L at the permitted flow limit

(2.89 MGD), it would discharge 2.4 pounds of phosphorus per day. That is axiomatic. The third sentence does the same basic calculation for the winter months using the new winter concentration limit of 0.2 mg/L. There is nothing wrong with this arithmetic. But it does not justify issuing a permit that allows the Facility to discharge 2.4 lbs/day of phosphorus per day during the growing season and 4.8 lbs/day during the winter months **regardless of whether the flow from the Facility is less than permitted flow, and regardless of the concentration of phosphorus in the discharges to the river.**

## STANDARD OF REVIEW

The EAB applies the standard of review set forth in 40 C.F.R. § 124.19(a)(4): whether the decision was based on “[a] finding of fact or conclusion of law that is clearly erroneous” or “[a]n exercise of discretion or an important policy consideration that the Environmental Appeals Board should, in its discretion, review.” When evaluating a permit decision for clear error, the Board examines the administrative record to determine whether the permit issuer exercised “considered judgment.”<sup>17</sup> The permit issuer must articulate with reasonable clarity the reasons supporting its conclusions and the significance of the crucial facts it relied on.<sup>18</sup> As a whole, the record must demonstrate that the permit issuer “duly considered the issues raised in the comments” and followed an approach that “is rational in light of all information in the record.”<sup>19</sup> In reviewing the Region’s exercise of discretion, the Board applies an abuse of discretion

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<sup>17</sup> *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417 (EAB 1997).

<sup>18</sup> *Id.*

<sup>19</sup> *In re Gov’t of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D 323, 342 (EAB 2002) (“D.C. MS4”).

standard.<sup>20</sup> “[A]cts of discretion must be adequately explained and justified” in the record.<sup>21</sup> “The Board has, in the past, remanded permits because they have not provided such an adequate rationale.”<sup>22</sup> When a “permitting authority provides inconsistent or conflicting explanations for its actions, the Board frequently concludes that the Region’s rationale is unclear and remands for further clarity.”<sup>23</sup>

Moreover, under § 124.19(a)(4)’s “conclusion of law that is clearly erroneous” standard, where a permit “does not meet minimum regulatory [or statutory] requirements,” remand of the relevant portions of the permit “is necessary.”<sup>24</sup>

## ARGUMENT

### I. **The Region Erred by Not Providing Adequate Public Notice of, and Opportunity to Comment on, the Revised Phosphorus Limits That First Appeared in the Final Permit.**

The Administrative Procedure Act (“APA”) and the CWA require public notice and comment on NPDES permits. See *Waterkeeper All., Inc. v. EPA*, 399 F.3d 486, 503 (2d Cir. 2005) (“Congress clearly intended to guarantee the public a meaningful role in the implementation of the Clean Water Act.”).

This statutory requirement was discussed in detail in detail in the Board’s recent decision in *In Re GSP Merrimack L.L.C.*, 18 E.A.D. 524, 548-553 (2021) (“Merrimack”): While it is true that the statutory obligation to provide opportunity for notice and comment “does not

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<sup>20</sup> *In re Guam Waterworks Auth.*, 15 E.A.D. 437, 443 at n.7 (EAB 2011).

<sup>21</sup> See *In re Ash Grove*, 7 E.A.D. at 397; see also *Motor Vehicles Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 48 (1983) (“[A]n agency must cogently explain why it has exercised its discretion in a given manner.”).

<sup>22</sup> *In re D. C. Water and Sewer Auth.*, 13 E.A.D. 714, 764 n.79 (EAB 2008) (citations omitted).

<sup>23</sup> *In re Chukchansi Gold Resort*, 14 E.A.D. 260, 280 (EAB 2009).

<sup>24</sup> 2 See *D.C. MS4*, 10 E.A.D. at 346.

preclude agencies from modifying the terms of a draft permit in issuing a final permit . . .

[citation omitted]. [n]onetheless”

“the requirement that the public be provided adequate notice constrains an agency’s latitude in modifying a final permit to those modifications that are the “‘logical outgrowth’ of the public comment process.” *In re City of Palmdale*, 15 E.A.D. 700, 714 (EAB 2012); see *DC Water*, 13 E.A.D. at 759, 762 (applying logical outgrowth test and concluding that final permit failed that test because it constituted “deni[al of] the opportunity to provide meaningful comments”); *Horsehead Res. Dev. Co. v. Browner*, 16 F.3d 1246, 1268 (D.C. Cir. 1994) (holding no logical outgrowth where EPA “failed to give interested parties sufficient notice of the form that the [final rule] might take, undermining the aims of meaningful participation and informed decisionmaking”); *see also Long Island Care at Home, Ltd. v. Coke*, 551 U.S. 158, 174 (2007) (“**The object [of the logical outgrowth test], in short, is one of fair notice.**” [Emphasis added.].

**The question of whether a change in a final permit is a logical outgrowth of the public comment process turns on “whether interested parties reasonably could have anticipated the final rulemaking from the draft permit.”** *DC Water*, 13 E.A.D. at 759 (quoting NRDC, 279 F.3d at 1186) [Emphasis added.]; *see Covad Commc ’ns Co. v. FCC*, 450 F.3d 528, 548 (D.C. Cir. 2006) (holding that “[w]hether the ‘logical outgrowth’ test is satisfied depends on whether the affected party ‘should have anticipated’ the agency’s final course in light of the initial notice”). Put another way, the underlying question is “whether a new round of notice and comment would provide the first opportunity for interested parties to offer comments that could persuade the agency to modify its rule.”” [Emphasis added.] *DC Water*, 13 E.A.D. at 759 (quoting NRDC, 279 F.3d at 1186). And resolution of that question should take into consideration “how well the notice that the agency gave serves the policies underlying the notice requirement.” *Small Refiner Task Force*, 705 F.2d at 547. Notice generally serves at least three distinct purposes: (1) “improv[ing] the quality of agency rulemaking by ensuring that agency regulations will be ‘tested by exposure to diverse public comment’”; (2) providing “fairness to affected parties”; and (3) aiding review of an agency decision **“by giving affected parties an opportunity to develop evidence in the record to support their objections.”** [Emphasis added.] *Id.* (citations omitted).

*Merrimack* at p. 552.

By these standards, the Agency’s action in this case fails completely. As is described above, there is a concentration limit for phosphorus in the existing NPDES permit for the Marlborough plant. There is a concentration limit for phosphorus in the permits for all of the

municipal treatment plants on the Assabet River. There was a concentration limit for phosphorus in the draft permit in this case. There was no discussion (indeed there was no mention) of the possibility of eliminating the concentration limit for phosphorus anywhere in the Draft Permit, the accompanying Fact Sheet, or any attached documents. There is simply no way that OARS or any other “affected party ‘should have anticipated’ the agency’s final course in light of the initial notice” to change the Part I.A.1’s phosphorus discharge limits.

And this is not an inconsequential change. Eliminating a concentration-based limit means (as it is obviously intended to mean) that over the course of a day the Marlborough plant can discharge effluent with higher concentrations of phosphorus than it could have done under the draft permit (and than it can do under the existing 16-year-old permit). As is described above, and as is explained in more detail in the OARS Memorandum, the concentration – as distinct from simply the total amount of phosphorous – is a critical factor for the ecological health of the Assabet River. And, as is also explained, at periods of low flow the river is both more susceptible to damage from phosphorous (because it is less able to dilute the pollutant – i.e., lower the concentrations – on its own) and also more dependent on the municipal treatment plants for what flow there is. With the concentration limit that is in the existing permit and was in the draft permit (and is in the permits for all of the other municipal plants on the river), there is an assurance that the plant’s discharge to the river, whatever the volume of discharge, will not exceed a specified concentration of phosphorus. In addition, the concentration limit assures that the loading of phosphorus to the river is proportionate to the flow. It provides a backstop to the addition of phosphorus to the river, whatever effluent flow is being discharged from the plant, at the most critical time of year—the growing season. As noted above, the effluent discharges from the three POTWs above the USGS gage in Maynard comprise approximately 80% of the Assabet

River's flow at the gage during low flow periods. The receiving water provides little to no dilution. These assurances are central to the progress that has been made so far and the progress that is anticipated in dealing with the severe eutrophication of the Assabet River.

Elimination of that assurance will lead to the permit's being unlawful, in several ways:

## **II. The Final Permit Violates the Anti-Backsliding Provisions of the Clean Water Act.**

Section 402 of the Clean Water Act provides that "a permit may not be renewed, reissued or modified to contain effluent limitations [that] are less stringent than the comparable effluent limitations in the previous permit[.]". CWA § 402(o)(1); 33 U.S.C. § 1342(o)(1). There is an exception to this "anti-backsliding rule" that this Board addressed in *Ruidoso City of Ruidoso Downs and Village of Ruidoso WWTP*, 17 E.A.D 697 2019.

As in this case, EPA issued a new permit to a municipal treatment plant that did not contain a concentration limit that had been in the previous permit. On appeal to the Board, EPA relied on the exception that allows such a change if "the . . . effect of . . . such revised effluent limitations based on such total maximum daily load . . . will assure the attainment of [the applicable] water quality standard." 33 U.S.C. § 1313(d)(4)(A)(i)." The Board explained what was necessary in order for EPA to invoke the exception – an explanation that does not help the Agency in this case. The Board noted that it "typically defers to a permit issuer's technical expertise and experience, **as long as the permit issuer adequately explains its rationale and supports its reasoning in the administrative record.**" *Ruidoso* at 700. (Emphasis added.) Not surprisingly, in *Ruidoso* the change that would eliminate the concentration-based limit was introduced in the draft permit. *Ruidoso* at 712. And the Agency explained why it was making the change. Id. 712-13. And the petitioner commented on the change. Id. 713. None of that, needless to say, occurred in this case.

**III. The Final Permit's Elimination of Concentration-Based Phosphorus Limits Violates the Assabet River's 2005 TMDL for Phosphorus, Which Specifically Mandates Imposition of Strict Concentration Limits on Discharges of Phosphorus at the Four POTWs.**

States are primarily responsible for establishing TMDLs, but EPA has approval authority. CWA § 303(d)(2), 33 U.S.C § 1313(d)(2). In 2004, a TMDL was developed by MassDEP for phosphorus discharges to the eutrophic Assabet River. The primary focus of this TMDL was the discharges of phosphorus from the four POTWs discharging to the Assabet. One of these four POTWs was the Marlborough Facility. Since the issuance of that TMDL, all four POTWs have been subject to the very same concentration-based discharge limits for phosphorus. Now Marlborough is seeking a different discharge limit from all the others.

Both Marlborough's Comment 11 (requesting a shift to mass-based limits) and EPA's Response to that Comment rely on the Assabet's TMDL for support for the notion that such a shift is, as EPA puts it, "in accordance with the mass-based limit outlined for the Facility in Table 10 of the Assabet TMDL."

This statement is not supported by the TMDL or Table 10. See TMDL, Attachment 1.

The TMDL is very clear on what it requires of the four POTWs going forward, namely, that they must meet a concentration-based effluent limit of 0.1 mg/L during the growing season. Here is how this is stated in the Executive Summary on p. 7 of the TMDL: "*The TMDL for meeting the water quality objectives, including a margin of safety, is removal of total phosphorus from POTW effluents to 0.1 mg/L during the growing season and a 90% reduction of phosphorus sediment flux.*" There is no reference here to a mass-based limit in lbs/day or any other frequency of measurement.

This concentration-based effluent limit is repeated -- and emphasized -- in the body of the TMDL report. On p. 38 of TMDL, this statement appears in **bold** text:

**Based upon the detailed data collection and predictive water quality modeling conducted and in consideration of all of evidence and analysis previously discussed, DEP is establishing in accordance with 314 CMR 4.05(5)(c) an effluent limit of 0.1 mg/l total phosphorus at design flows during the growing season for all POTWs discharging to the Assabet River plus a 90% reduction in sediment phosphorus flux. These limits and reductions to nutrient inputs are necessary to control accelerated and cultural eutrophication in the Assabet River so that it can meet its designated uses.**

Here is the Table 10 referenced in EPA's Comment above:

**Table 10**  
**TMDL for Total Phosphorus**  
(minor POTWs not modeled in italics)

			POTW Effluent Limits Total Phosphorus, mg/L April 1 – October 31 <sup>1</sup>		POTW Effluent Limits Total Phosphorus, mg/L November 1 – March 31
POTW	NPDES	Design Flow, MGD	mg/L	lbs/day @ design flow	mg/L and lbs/day
Westborough	MA0100412	7.68	0.10	6.4	Optimize for particulate phosphorus removal and monitor and report for total and dissolved phosphorus concentration
Marlborough West	MA0100480	2.89	0.10	2.4	
Hudson	MA0101788	3.00	0.10	2.5	
Maynard	MA0101001	1.45	0.10	1.2	
<i>Powdermill Plaza<sup>2</sup></i>		---	N/A	N/A	
<i>Middlesex School<sup>3</sup></i>	<i>MA0102466</i>	0.052	0.50	0.22	0.50 mg/l and 0.22 lb/day
<i>MCI Concord<sup>4</sup></i>	<i>MA0102245</i>	0.3	0.50	1.25	0.50 mg/l and 1.25 lb/day

<sup>1</sup> Includes a margin of safety of 6.1 pounds per day

<sup>2</sup> connecting to Acton POTW – no TMDL necessary

<sup>3</sup> Spencer Brook is receiving water – tributary to Assabet River and below all impoundments

<sup>4</sup> downstream of all impoundments and near confluence with Concord River

Note that the Table is very clear that the numbers in the lbs/day column are "@ design flow." When the Facility is discharging at less than design flow, the allowable lbs/day would be expected to be proportionately less. Also note that the headers at the top of the columns state:

POTW Effluent Limits  
Total Phosphorus, mg/L

These headers underscore that the TMDL's mandated effluent limits for total phosphorus are in mg/L, not lbs/day.

Further supporting not just the importance but the necessity of using the concentration-based limit of 0.1 mg/L is the TMDL section titled "Margin of Safety," which appears on pp. 40 and 41 of the TMDL. TMDLs must provide a margin of safety to address uncertainties in the technical analysis. 33 U.S.C. § 1313(d)(1)(C). In that TMDL section, this sentence on p. 41 sums up the margin of safety analysis: "*Therefore, the Department believes effluent limits for total phosphorus of 0.1 mg/L at all POTWs are necessary as a component of the margin of safety.*" [Emphasis added.]

All of this completely undermines EPA's statement in Response 11 that a warm weather discharge limit for phosphorus for Marlborough's POTW of 2.4 lbs/day (without regard to whether that is "@ design flow" or a lesser flow), "is in accordance with the mass-based limit outlined for the Facility in Table 10 of the Assabet TMDL."

As discussed above, the Ashland NH Draft Permit specifically solicited comment on the Region's proposed mass-based limit. Significantly, the Region stated how such a limit should be calculated and proceeded to do so: "A mass-based limit must be calculated to be protective of the same instream Gold Book threshold of 0.100 mg/L. To ensure a mass-based limit is protective *under critical flow conditions, the limit is calculated using the lowest expected receiving water flow and lowest expected warm weather effluent flow...*" (emphasis added; NPDES Permit No. NH0100005, Fact Sheet at 25-26 of 38, "Alternative Mass-Based Approach") followed by calculations. This is not the method used in the Marlborough Westerly Final Permit.

OARS calculations using the same method employed by EPA Region 1 in the Ashland NH Draft Permit show that at low flows the load of 2.40 lbs/day in the Final Permit for

Marlborough is *double* that of the 1.18 lbs/day that should have been allowed. What would be the impact in the river? OARS shows a very significant in-stream impact if this decision were to set a **precedent** for the much larger Westborough POTW at the headwaters of the Assabet River and just upstream of the Marlborough Westerly POTW. During low-flow (7Q10) conditions, this new load-based limit could result in a 70% increase in phosphorus concentration in the Assabet River downstream of the Marlborough discharge (OARS Memorandum, p. 9)

Allowing this less stringent limit would be a major set-back for the river and more than a decade of efforts to improve its eutrophic conditions, just as some improvements are beginning to appear. Simply shifting to a mass-based limit without specifying in the permit that this limit applies only at the design flow opens the door to discharging significantly greater loads of TP to the river each day than has been the norm for the past 5 or 6 years.

Yet, despite this, the Final Permit does not specify that this new mass-based limit applies only at design flow.

Thus, pursuant to this new Final Permit, so long as the Facility's phosphorus discharges do not exceed the Average Monthly lbs/day limit, it makes no difference what the average monthly discharge flow is – even if much less than design flow – or what the average monthly discharge concentration is. Yes, there is a requirement to “report” that average monthly concentration. But it's not a violation of the Final Permit if that concentration exceeds 0.1 mg/L or even a much higher value.

There is simply no way to square these phosphorus discharge limits in the Final Permit with the strict discharge limit mandated in the TMDL – 0.1 mg/L for the summer growing season – and is far from being “in accordance” with it.

If the EPA wants to amend the TMDL, there are ways to do that. But that has not happened here and no one has even mentioned that idea. Until then, pursuant to federal regulations, the permits for the four Assabet River's POTWs must all contain phosphorus discharge limits that are consistent with the TMDL. 40 C.F.R. 122.44(d)(1)(vii)(B). This Final Permit completely fails to do that.

**IV. Because the 401 Water Quality Certification Submitted by the State is Based on the Significantly Different, More Stringent Phosphorus Discharge Limits in the Draft Permit, the Final Permit is Not Supported by the 401 Certificate and Therefore Cannot Be Issued.**

Under Section 401 of the Clean Water Act, a federal agency may not issue a permit or license to conduct any activity that may result in any discharge into waters of the United States unless a Section 401 water quality certification is issued, or certification is waived.

In this case, the MassDEP issued a 401 water quality certification based on the Draft Permit issued by Region 1. That certification is attached to the Region 1's Final Permit at pp. 22-25.

MassDEP's 401 certification states that MassDEP reviewed the Permittee's NPDES application and Region 1's "**draft** 2020 Federal NPDES permit (MA Permit No. MA0100480) for the Marlborough Westerly Wastewater Treatment Plant." [Emphasis added]. It then goes on to say that MassDEP

hereby certifies: 1. that the following conditions [pertaining to certain special PFAS monitoring requirements], together with **the terms and conditions** contained in the **proposed** 2020 Federal NPDES permit for the Marlborough Westerly Wastewater Treatment Plant, **are necessary to assure compliance** with the applicable provisions of the Federal Clean Water Act Sections 208(e), 301, 302, 303, 306, and 307 and with appropriate requirements of State law, including, without limitation, the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the Massachusetts Water Quality Standards published at 314 CMR 4.00. [Emphasis added.]

Further along in this certification MassDEP states:

To meet the requirements of Massachusetts laws, each of the **conditions cited in the draft permit** and this certification **shall not be made less stringent** unless new data or other information is presented and MassDEP determines modification of this certification is appropriate in consideration of the relevant water quality considerations. [Emphasis added.]

The conditions in the draft permit that were most relevant to MassDEP's assessment of impairment of water quality caused by eutrophication (in a river subject to a TMDL for phosphorus) were the phosphorus discharge limits. And those limits in the draft were concentration-based limits that limited the loading of phosphorus into the river below 2.4 lbs/day on days when the discharge flow fell below the flow limit (2.89 MGD). By contrast, the load-based limits in the Final Permit were far less stringent, for they allowed the Facility to discharge 2.4 lbs/day of phosphorus regardless of whether the discharge flow fell below the flow limit. As shown above, and in the OARS Memorandum, this can result in far higher concentrations of phosphorus being discharged, resulting in higher phosphorus concentrations in the river, especially when the river is most sensitive to phosphorus in the water column and most likely to have its greatest impact on eutrophication, namely in the summer when it will spur additional biomass growth.

Section (d) of 40 C.F.R. 124.55 states: "A condition in a draft permit may be changed during agency review in any manner consistent with a certification meeting the requirements of §124.53(e). No such changes shall require EPA to submit the permit to the State for recertification." However, because the phosphorus limits contained in the Final Permit issued

here are materially less stringent than the limits set forth in the Draft Permit, they cannot be considered “consistent with” MassDEP’s certification.<sup>25</sup>

Therefore, the Final Permit lacks a valid 401 certification from the state, and pursuant to 40 C.F.R. 124.55(a)(2) it cannot be issued.

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<sup>25</sup> In addition, EPA regulations and the Antidegradation Provisions of the Massachusetts Surface Water Quality Standards 314 CMR 4.00 require an antidegradation review as explained in Attachment 5, OARS Memorandum, p. 11.

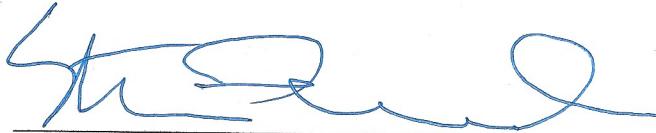
**RELIEF REQUESTED**

For all of the foregoing reasons, OARS requests that the Board remand the Final Permit to EPA Region 1 and direct it to either:

- (a) Open a public comment period on the terms of this Final Permit and seek a proper state Section 401 certification of these terms; or
- (b) Prepare a new Draft Permit that is consistent with the TMDL, antibacksliding and antidegradation requirements, and then request public comment on that new Draft Permit along with a proper state Section 401 certification of its terms.

OARS, Inc.

By its Attorney,



Stephen M. Leonard  
Cronin & Leonard  
56 Nonesuch Road  
Weston MA 02493  
Tel. 617-697-4069

E-Mail: [sleonard@croninleonard.com](mailto:sleonard@croninleonard.com)

## **STATEMENT OF COMPLIANCE WITH WORD LIMITATION**

In accordance with 40 C.F.R §§ 124.19(d)(1)(iv) & (d)(3), I hereby certify that this petition does not exceed 14,000 words. Not including the cover page, tables, signature block, statement of compliance with word limitation, and certificate of service, this petition contains 8,986 words (including footnotes), as counted by Microsoft Word. This petition is written in Times New Roman, 12-point font

## **CERTIFICATE OF SERVICE**

I certify that I caused to be served by first class mail a copy of the Petition for Review and Attachments to:

Dennis Deziel, Regional Administrator  
U.S. Environmental Protection Agency, Region 1  
5 Post Office Square - Suite 100  
Boston, MA 02109-3912

Lealdon Langley, Director  
Division of Watershed Management  
Department of Environmental Protection  
Commonwealth of Massachusetts  
One Winter Street  
Boston, MA 02108-4746

Sean Divoli, Commissioner of Public Works  
The City of Marlborough  
Public Works Department  
135 Neil St.  
Marlborough, MA 01752

Dated: November 24, 2021

*/s/ Stephen M. Leonard*  
Stephen M. Leonard