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

In the Matter of:	
City of Keene	NPDES Appeal No. 21-03
NPDES Permit No. NH0100790	

EPA REGION 1'S RESPONSE TO THE PETITION FOR REVIEW

Respectfully submitted,

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TABLE OF CONTENTS

TABLE OF AUTHORITIES

Court Decisions

EAB Decisions

Federal Statutes

Federal Regulations

Other Federal Materials

New Hampshire Statutes

New Hampshire Regulations

TABLE OF ATTACHMENTS

I. STATEMENT OF THE CASE

Pursuant to 40 C.F.R. § 124.19(b)(2) Region 1 of the U.S. Environmental Protection Agency ("Region") respectfully submits to the Environmental Appeals Board ("EAB" or "Board") this Response to the Petition for Review ("Petition") filed by the City of Keene, New Hampshire ("Keene" or "Petitioner"), in connection with a National Pollutant Discharge Elimination System ("NPDES") permit ("Final Permit") issued by the Region under the Clean Water Act ("CWA" or "Act") for discharges from the Keene Wastewater Treatment Plant ("Facility" or "POTW") to the Ashuelot River in Swanzey, New Hampshire.

Petitioner presents four issues for Board review—two relating to the derivation of water quality-based effluent limitations ("WQBELs") for pH and Total Recoverable Aluminum ("aluminum"), and two concerning the Region's decision not to include special conditions relevant to potential adjustment of the Final Permit's aluminum and Total Recoverable Copper ("copper") limitations based on data collection and analysis that may occur in the future.

Though Keene purports to challenge the Final Permit's effluent limits for pH and aluminum, its arguments in fact amount to facial attacks on New Hampshire's EPA-approved water quality criteria themselves, and in the case of pH, to yet another predicate regulatory determination, namely, New Hampshire's EPA-approved listing decision made under Section 303(d) of the Act. As these are determinations reviewable in other fora, however, the Board lacks jurisdiction over them, consistent with a long line of EAB and federal court precedent. Furthermore, Board precedent unambiguously holds that a permitting authority has no choice but to apply the currently effective, EPA-approved water quality standards, not EPA guidance, as Petitioner urges here. Although Keene styles these challenges as abuses of discretion, in these instances, there was no discretion to abuse. EPA was only following the straightforward

mandates of the Act, which compelled application of the approved WQS, as written. Review of these issues must accordingly be denied.

Keene also challenges the Region's decisions not to include special conditions related to the copper and aluminum effluent limitations. Each special condition, in the form requested by Keene in its public comments, would have bound the Region to permit modifications upon the results of future studies. The Region duly considered but reasonably denied Keene's requests, explaining that it preferred to evaluate future requests once the results of any studies were available, and that on the merits, its mind remained open. Cogently explained and rooted in EPA's obligation to ensure compliance with applicable WQS based on an existing rather than hypothetical record, this commonsense exercise of discretion presents no basis for review. It is clear from the record that EPA explained in adequate detail the governing legal framework for establishing WQBELs—that is, the process of deriving necessary limits from the currently effective WQS, rather than from criteria recommended by EPA in guidance—and its justification for not including the requested special conditions in the Permit.

Keene, in contrast, in almost all cases fails to confront, or even acknowledge, the Region's dispositive legal analyses and technical determinations, and instead appears to conclude that the Region *must* have failed to consider its comments, because its preferred outcomes do not appear in the Final Permit. Of course, the fact that the Region did not adopt Keene's desired limits or language in the Final Permit does not evidence the Region's failure to consider Keene's comments. In many instances, and as explained in the Region's responses to comments, the Region was foreclosed from adopting Keene's requested changes to the Draft Permit, as Keene based those requests on misunderstandings of applicable law or misapprehensions of facts of the record—or, sometimes, both. By one reading of the Petition, Keene has essentially restated its

grievances in the Petition. By another, it has merely advanced differences of opinion or alternate theories on technical matters. By any reading, the Region respectfully submits that Keene has failed to carry its burden of demonstrating any grounds for Board review.

II. BOARD JURISDICTION AND PRINCIPLES GOVERNING REVIEW

The Board is a tribunal of limited jurisdiction; its authority to review permit decisions is "limited by the statutes, regulations, and delegations that authorize and provide standards for such review." *In re Carlton, Inc*., 9 E.A.D. 690, 692 (EAB 2001); *see also* 57 Fed. Reg. 5,320 (Feb. 13, 1992). The statute relevant to the Board's jurisdiction in this case is the CWA, particularly its Section 402 NPDES permitting requirements. CWA § 402. The Board's authority to review NPDES permit decisions is found generally at 40 C.F.R. part 124. This part sets out "EPA procedures for issuing, modifying, revoking and reissuing, or terminating all…NPDES permits." 40 C.F.R. § 124.1(a). The EPA Regional Administrator issues a final permit decision under 40 C.F.R. § 124.15(a), and such permits are, in turn, appealable to the Board under 40 C.F.R. § 124.19(a).

The Board's scope of review is limited to "contested permit condition[s] or other specific challenge[s] to the permit decision." 40 C.F.R. § 124.19(a)(4). The Board's review "does not ordinarily extend to considerations of the validity of prior, predicate regulatory decisions that are reviewable in other fora*." In re City of Moscow*, 10 E.A.D. 135, 160-61 (EAB 2001); *In re USGen New Eng., Inc*., 11 E.A.D. 525, 555-56 (EAB 2004); *In re City of Irving*, 10 E.A.D. 111, 124 (EAB 2001), *review denied sub nom*. *City of Abilene v. EPA*, 325 F.3d 657 (5th Cir. 2003).

The Board has discretion to grant or deny review of a permit decision. 40 C.F.R. § 124.19; *see In re Avenal Power Ctr., LLC*, 15 E.A.D. 384, 394-95 (EAB 2011) (*citing* Consolidated Permit Regulations, 45 Fed. Reg. 33,290, 33,412 (May 19, 1980)), *remanded on*

other grounds sub nom. Sierra Club v. EPA, 762 F.3d 971 (9th Cir. 2014). Ordinarily, the Board will deny review of a permit and thus not remand it, unless the permit decision is based on a clearly erroneous finding of fact or conclusion of law or involves a matter of policy or an exercise of discretion that warrants review. 40 C.F.R. § 124.19(a)(4)(i)(A)-(B); *accord, e.g., In re Prairie State Generating Co.,* 13 E.A.D. 1, 10 (EAB 2006), *aff'd sub*. *nom Sierra Club v. EPA*, 499 F.3d 653 (7th Cir. 2007); *see also* Revisions to the Permit Appeals Process To Restore the Organization and Function of the Environmental Appeals Board, 86 Fed. Reg. 31,172 (June 11, 2021); *see also* Revisions to Procedural Rules Applicable in Permit Appeals, 78 Fed. Reg. 5281, 5282, 5284 (Jan. 25, 2013). The Board's decision whether to grant or deny review of a permit is guided by the preamble to the regulations authorizing appeal under part 124, in which EPA stated that the Board's power to grant review "should be only sparingly exercised" and that "most permit conditions should be finally determined at the [permit issuer's] level." 45 Fed. Reg. at 33,412; *In re City and County of San Francisco,* 18 E.A.D. 322, 325 (EAB 2020).

The burden of demonstrating that the Board should review a permit rests with the petitioner. 40 C.F.R. § 124.19(a)(4). A petitioner seeking Board review must demonstrate that any issues and arguments it raises have been preserved, unless the issues or arguments were not reasonably ascertainable before the close of the public comment period. *Id.*; 40 C.F.R. § 124.13; *e.g. In re City of Moscow*, 10 E.A.D. at 141-142.

Assuming that the issues have been preserved, a petitioner must specifically state its objections to the permit and explain why the permit issuer's previous responses to those comments were clearly erroneous or otherwise warrant review. 40 C.F.R. § 124.19(a)(4)(i)-(ii); *e.g., In re Teck Cominco Alaska, Inc.,* 11 E.A.D. 457, 494-95 (EAB 2004). It is insufficient to

"merely… reiterate comments previously submitted on the draft permit." *In re Springfield Water and Sewer Commission*, 18 E.A.D. 430, 439 (EAB 2021) (citations omitted).

When evaluating a challenged permit decision for clear error, the Board examines the administrative record that serves as the basis for the permit to determine whether the permit issuer exercised "considered judgment." *E.g. Id*. The permit issuer must articulate with reasonable clarity the reasons supporting its conclusion and the significance of the crucial facts it relied upon when reaching its conclusion. *E.g., In re Shell Offshore, Inc*., 13 E.A.D. 357, 386 (EAB 2007). As a whole, the record must demonstrate that the permit issuer "duly considered the issues raised in the comments" and ultimately adopted an approach that "is rational in light of all the information in the record." *In re Gov't of D.C. Mun. Separate Storm Sewer Sys*., 10 E.A.D. 323, 334 (EAB 2002).

"In cases where the views of the Region and the petitioner indicate bona fide differences of expert opinion or judgment on a technical issue, the Board typically will defer to the Region." *In re NE Hub Partners, LP*, 7 E.A.D. 561, 567-68 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. EPA,* 185 F.3d 862 (3d Cir. 1999); *see also In re Springfield*, 9 E.A.D. at 439. To prevail on a technical issue, Petitioner must make a substantial showing that the Region clearly erred. *See, e.g., In re Town of Ashland Wastewater Treatment Facility*, 9 E.A.D. 661, 667 (EAB 2001) ("the Board traditionally assigns a heavy burden to petitioners seeking review of issues that are essentially technical; clear error or a reviewable exercise of discretion is not established simply because the petitioner presents a difference of opinion or alternative theory regarding a technical matter.") (citations omitted.) A petitioner must present "sufficiently specific or compelling evidence or argument that would cast doubt on the thoroughness or rationality of the Region's technical evaluations and conclusions." *In re Envtl. Disposal Sys.,*

Inc., 12 E.A.D. 254, 292 (EAB 2005). The Board "expect[s], in a challenge to technical issues" such evidence as "studies, reports, or other materials that provide relevant, detailed, and specific facts and data about permitting matters that were not adequately considered by a permit issuer…" *Id. at* 291. (citations omitted). Such materials are limited to those which appear in the administrative record. *See, e.g., In re Springfield*, 9 E.A.D. at 439 ("… the Board examines the administrative record that serves as the basis for the permit decision to determine whether the permit issuer exercised 'considered judgment'…").

In reviewing the exercise of discretion by the permitting authority, the Board applies an abuse of discretion standard. *In re Guam Waterworks Auth*., 15 E.A.D. 437, 443 n.7 (EAB 2011). The Board will uphold a permit issuer's reasonable exercise of discretion if that decision is cogently explained and supported in the record. *See, e.g., In re Ash Grove Cement Co.*, 7 E.A.D. 387, 397 (EAB 1997) ("[A]cts of discretion must be adequately explained and justified.").

III. STATUTORY AND REGULATORY BACKGROUND

In 1972, Congress enacted the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." CWA § 101(a). To achieve this objective, the Act generally prohibits the discharge of pollutants into the waters of the United States unless authorized by an NPDES or other CWA permit. CWA § 301. NPDES permits protect water quality through the imposition of effluent limitations and permit conditions, which, among other things, implement applicable WQS and other applicable laws. CWA § 402.

A. State WQS

Three components comprise state WQS: (1) "designated uses" of a water body, such as public drinking supply, recreation, or wildlife habitat; (2) "water quality criteria" ("WQC"), expressed in numeric or narrative form, specifying the quantities of various pollutants that may

be present in the water body without impairing the designated uses; and (3) an "antidegradation" provision that protects existing uses and high-quality waters. *See* CWA § 303(c)(2)(A); 40 C.F.R. §§ 131.10-.12.

States must regularly identify and submit a list of waters within their borders that do not meet these WQS ("impaired waters") to EPA. CWA § 303(d); *see also* 40 C.F.R. §§ 130.7, .10. States must also review their WQS at least every three years ("triennial review") pursuant to the requirements in 40 C.F.R. § 131.20.

In an entirely separate process, EPA periodically revises its non-binding nationally recommended water quality criteria required by CWA § 304(a). As part of states' triennial reviews, they must consider – but need not necessarily adopt – EPA's recommended criteria. *See* 40 C.F.R. § 131.20(a). State WQS are subject to EPA approval. 40 C.F.R. § 131.21; *see also* CWA § 303. An existing WQS remains in effect "until EPA approves a change… to that [WQS], or until EPA promulgates a more stringent [WQS]." 40 C.F.R. § 131.21(e).

Acting on a proposed water quality standards revision submitted by the State in 2016, EPA approved the currently-effective NH WQS in 2021. *Ex. A.*

B. Effluent Limitations in NPDES permits

Effluent limitations control pollutant discharges into the waters of the United States by restricting the types and amounts of particular pollutants a permitted entity may lawfully discharge. *See* CWA §§ 301(b), 304(b), 502(11); 40 C.F.R. § 122.44. The CWA and regulations prohibit permitting authorities from issuing NPDES permits that fail to ensure compliance with the water quality standards of all affected states. *See* CWA §§ 301(b)(1)(C), 401(a)(1)-(2); 40 C.F.R. §§ 122.4(d), .44(d)(1). NPDES permits must ensure compliance with those WQS currently in effect, not those which may be implemented in the future. *See In re City of Moscow,*

10 E.A.D. at 166 ("…until such time that [the state] actually changes its water quality criteria… the Region has no choice but to apply it."). EPA's regulations establish the process for the Region to determine whether permit limits for particular pollutants are "necessary" to achieve WQS and for the formulation of these requirements. 40 C.F.R. § 122.44(d). Permit writers must first determine whether particular discharged pollutants may "cause, have the reasonable potential to cause, or contribute to an excursion" of the WQS. *Id.* If so, then the permit *must* contain effluent limits as stringent as necessary to achieve the WQS. *Id.* § 122.44(d)(1), (5).

The State of New Hampshire has not obtained NPDES program authorization, and therefore EPA's Region 1 office issues NPDES permits to point source dischargers in New Hampshire.

IV. FACTUAL AND PROCEDURAL BACKGROUND

A. The POTW

Keene's Publicly Owned Treatment Works ("POTW") treats domestic, commercial, and industrial wastewater from the City of Keene and sanitary and industrial wastewater from the Towns of Marlborough and Swanzey, which are co-permittees on the permit. *Ex. B*, 12. The Facility's design flow is 6.0 million gallons per day (MGD). *Id.* at 13. Effluent discharges into the Ashuelot River via two pipes approximately 50 feet apart. *Id.* at 13.

B. The receiving waters

Keene's POTW discharges to Ashuelot River Segment NHRIV802010301-38, a Class B water. *Id.* at 1.

New Hampshire has classified the Ashuelot River as a "Class B" water bodies and designated the uses thereof as: (1) fishing, swimming, and other recreational purposes; (2) public

water supply (after adequate treatment); and (3) aquatic life habitat. *See* N.H. Rev. Stat. Ann. § 485-A:8 ¶ II; N.H. Code Admin. R. Ann. Env-Wq 1702.11, 1703.01.

"The pH for [Class B] waters shall be 6.5 to 8.0 except when due to natural causes." N.H. Rev. Stat. Ann. § 485-A:8 ¶ II; N.H. Code Admin. R. Ann. Env-Wq 1703.18(b). The segment receiving the WWTP's discharge is impaired for pH. *Ex. B*, 14; *Ex. C.*

For all surface waters, N.H. Code Admin. R. Ann. Env-Wq 1703.21(a) sets forth water quality criteria for toxic substances:

> Unless naturally occurring…all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that: (1) Injure or are inimical to plants, animals, humans or aquatic life; or (2) Persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in: (a) edible portions of fish, shellfish, other aquatic life, or (b) wildlife that might consume aquatic life.

N.H. Code Admin. R. Ann. Env-Wq 1703.21(b) further provides, in relevant part:

> Unless…naturally occurring, concentrations of toxic substances in all surface waters shall not exceed the recommended safe exposure levels of the most sensitive surface water use shown in Table 1703-1, subject to the notes in Env-Wq 1703.22, as follows:

TABLE 1703-1: Water Quality Criteria For Toxic Substances[1]

Chemical	Protection of Aquatic Life Concentration in micrograms per liter (ug/l)				Protection of Human Health Units per Liter	
	Fresh Acute Criteria	Fresh Chronic Criteria	Marine Acute Criteria	Marine Chronic Criteria	Water & Fish Ingestion	Fish Consumption Only
Aluminum	750[s]	87[s]	--	--	--	--
Copper[i]	2.9[f,d]	2.3[f,d]	4.8[d]	3.1[d]	1,000 ug[j]	1,000 ug[j]

N.H. Code Admin. R. Ann. Env-Wq 1703.22, in turn, sets forth the following notes for this table:

> …
>
> (d) The letter "d" shall indicate that criteria for these metals are expressed as a function of the water effect ratio (WER) as defined in 40 CFR 131.36(c), and that because the values

[1] The Region has included only the relevant portions of this table.

displayed in Table 1703-1 correspond to a WER of 1.0, metals criteria for different WERs shall be determined using the procedures described in the EPA publication "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals", EPA-823-B-94-001, dated February 1994, available as noted in Appendix B, provided that for copper, either of the following references, both available as noted in Appendix B, may be used

> (1) The "Streamlined Water-Effect Ratio procedure for Discharges of Copper", EPA-822-R-01-005, dated March 2001; or
> (2) The Biotic Ligand Model (freshwater only) as described in "Aquatic Life Ambient Freshwater Quality Criteria - Copper", EPA-822-R-07-001, dated February 2007.

…

(f) The letter "f" shall indicate that the freshwater aquatic criteria for these metals are expressed as a function of the total hardness, as mg/l CaCO3 of the surface water, and that because the values displayed in Table 1703-1 correspond to a total hardness of 20 mg/l the aquatic life criteria for other hardness values expressed as calcium carbonate shall be calculated using the equations and tables in Env-Wq 1703.23 and EnvWq 1703.24.

…

(i) The letter "i" shall indicate that the values presented for aquatic life protection are dissolved metals and for hardness-dependent metals are based on a hardness of 20 mg/L. To convert dissolved to total recoverable metal, the equations and tables in Env-Wq 1703.23 shall be used. To calculate dissolved or total recoverable fresh water criteria for hardness-dependent metals for hardness values other than 20 mg/l, the equations and tables shown in Env-Wq 1703.23 and Env-Wq 1703.24 shall be used.

…

(s) The letter "s" shall indicate that this value is expressed as acid-soluble aluminum.

…

C. The permit

The Region issued the Facility's previous permit in August 2007. *Ex. B,* 4; *Ex. G*. Keene timely appealed that permit's new, more stringent effluent limitations for phosphorus, copper, lead, and zinc. *Ex. E*. This previous permit did not have an aluminum limit. *See Ex. G*. On

November 20, 2007, the Region filed a notice with the Board withdrawing the disputed metals limits pursuant to 40 C.F.R. § 124.19(d). *Ex. F*. The withdrawal did not reflect the Region's agreement with Keene's alternative proposed limits but rather the Region's desire to ensure that the record adequately supported and explained the limits. *Ex. D* at 29. In place of the withdrawn metals limitations, the corresponding limits in Keene's April 15, 1994 permit remained in effect. *Ex. F*; *Ex. H*. The Board later denied review of the 2007 permit's disputed total phosphorus limit. *Ex. I*.

Keene applied for permit reissuance on June 21, 2012, before the 2007 permit expired on November 1 of that year. *Ex. B*, 4. Because the permit application was timely and complete, Keene's 2007 Permit was administratively continued pursuant to 40 C.F.R. § 122.6 and § 122.21(d). *Id.*

The Region released the draft of the current permit for public notice and comment on May 20, 2020 ("Draft Permit"). *Ex. K*. The public comment period was originally May 20, 2020 through June 18, 2020, but the Region extended the deadline to July 20, 2020. *Ex. L.* The Region received comments from three parties: Keene, the Connecticut Department of Energy and Environmental Protection and the Ashuelot River Local Advisory Committee. *Ex. D,* 1.

i. Derivation of Permit Limits for pH, Aluminum and Copper in Draft Permit

pH

The Permit's pH limit was established consistent with the numeric range established by New Hampshire's WQS: "The pH for [Class B] waters shall be 6.5 to 8.0 except when due to natural causes." [2] N.H. Rev. Stat. Ann. 485-A:8 ¶ II*;* N.H. Code Admin. R. Ann. Env-Wq

[2] The hydrogen ion concentration in an aqueous solution is represented by the pH using a logarithmic scale of 0 to 14 standard units (S.U.). Solutions with pH 7.0 S.U. are neutral, while those with pH less than 7.0 S.U. are acidic and those with pH greater than 7.0 S.U. are basic.

1703.18(b). The permit's pH range may be modified if the Permittee can demonstrate to NHDES that either: (1) the range should be widened due to naturally occurring conditions in the receiving water or (2) the naturally occurring receiving water pH is not significantly altered by the Permittee's discharge. *Ex. D,* 22; *Ex. O*.

Keene requested the inclusion of a special permit condition related to pH "indicating that the development of a site-specific study to evaluate if either of the [conditions above] appl[ies] to Keene's discharge is an accepted approach." *Ex. D*, 18. Although the Region considered this request, it decided not to include such a condition because "the upstream pH values referenced by the commenter do not represent a "natural condition." *Id.*, 22; *Ex. O.* The Region observed that "the receiving water is impaired for pH" and, as further described in the RTC, "the pH in the receiving water will be significantly altered by the Permittee's discharge." *Id.* Despite not granting the Permittee's request, the Region retained the explanation of the process for a pH limit modification, standard permit language, in the event it becomes relevant in the future.

Aluminum

The Final Permit's aluminum limit is based on the existing freshwater chronic WQC for that pollutant, 87 ug/L. N.H. Code Admin. R. Ann. Env-Wq 1703.21(b). The Region determined the existence of reasonable potential to cause or contribute to an excursion above the applicable criteria and calculated the "necessary" WQBEL required under NH WQS under 40 CFR § 122.44(d)(1), in this case factoring in effluent DMR data and aluminum ambient data from annual WET tests, as summarized in Appendix B of the Fact Sheet. *Ex. B*, Appendix B; *Ex. D*, 25. In New Hampshire, aluminum criteria are not hardness-dependent and are applied in terms of acid-soluble aluminum. *See* N.H. Code Admin. R. Ann. Env-Wq 1703.22(s). Without site-specific data showing the fraction of downstream aluminum in the acid-soluble form, the Region

assumed that the ratio of acid-soluble to total recoverable aluminum is 1:1. *Ex. B*, 31-32. The aluminum limit changed from 108 in the Draft Permit to 109 in the Final Permit due to a slight revision in the estimated critical low flow, the lowest 7-day average flow that occurs, on average, once every 10 years (7Q10). *Ex. D*, 18.

With this said, in anticipation of a potential revision to the New Hampshire freshwater aluminum criteria, the Final Permit includes a 3-year compliance schedule to meet the new aluminum limit of 109 µg/L. *Ex. B,* 32-33; *Ex. D,* 25, *Ex. M*, 17. EPA issued new aluminum criteria recommendations in December 2018, which are dependent on pH, dissolved organic carbon and hardness and which may be less stringent than New Hampshire's current criteria. *Ex. U; Ex. D,* 25. Although New Hampshire is considering adopting EPA's 2018 aluminum criteria recommendations as state WQC and submitting them to EPA for review, it has not yet decided to do so, and EPA will not prejudge approval or disapproval. *See Ex. D,* 25. Given this regulatory uncertainty, the Region therefore determined that it would be appropriate, pursuant to 40 C.F.R. § 122.47, to include a schedule of compliance that provides Keene with a 3-year period to achieve compliance with the final aluminum limit. *Ex. B,* 32-33; *Ex. D,* 25; *Ex. M,* 17. Additionally, the Region indicated that Keene may apply for a permit modification allowing additional time for compliance if New Hampshire has adopted new aluminum criteria but has not yet submitted the criteria for EPA review or if EPA has not yet acted on the new criteria. *Id.* If New Hampshire adopts new aluminum criteria and EPA approves them, the Region stated that Keene may apply for a permit modification to amend the permit based on the new criteria before the final aluminum effluent limit goes into effect. *Id.* If warranted by the new criteria and a reasonable potential analysis, EPA may relax or remove the effluent limit to the extent consistent with anti-degradation requirements. *Id.*

Copper

Copper criteria are hardness-dependent and are calculated according to N.H. Code Admin. R. Ann. Env-Wq 1703.21-24. *Ex. B*, 31. The Region calculated the estimated hardness of the Ashuelot River downstream of Keene's POTW using the critical low flow (7Q10), the design flow of the treatment plant, and the median hardness for both the receiving water upstream of the discharge and the treatment plant effluent. *Ex. B,* 31, Appendix A. Using the equation in Appendix B of the Fact Sheet, the Region calculated a downstream hardness of 36.7 mg/L. *Id*.

As the 2007 permit contained copper limits, the Region determined that reasonable potential exists and that a limit should be carried forward for the reasons explained in the record. *Ex. B,* 32, Appendix B; *Ex. D,* 29-30. The Region used the same mass balance equation as used for reasonable potential calculations to determine whether a more stringent copper limit would be necessary to meet WQS under current conditions. *Id.* The Region determined that the chronic and acute copper limits of 6.2 µg/L and 8.2 µg/L, respectively, from the 2007 permit would be protective and thus carried them forward in the Final Permit. *Id.*[3]

New Hampshire's WQS allow for the development of site-specific copper WQBELS using Water-Effects Ratio or Biotic Ligand Model procedures, which could possibly lead to relaxation of the copper limit; these methodologies are known as WER or BLM, respectively. N.H. Code Admin. R. Ann. Env-Wq 1703.22(d). The WER approach compares bioavailability and toxicity of a specific pollutant in receiving water and in laboratory test water and is used to adjust criteria to site-specific values. BLM is a metal bioavailability model that uses receiving

[3] As described in the RTC, the Region mistakenly used 5.9 µg/L and 7.2 µg/L limits in its draft permit calculations and corrected this in the Final Permit to be 6.2 µg/L and 8.2 µg/L.

water body characteristics and monitoring data to develop site-specific water quality criteria. Keene has not yet conducted these analyses.

ii. The Final Permit

In response to comments, the Region made six revisions to the draft permit. *Ex. D,* 2. Relevant to this appeal, the Region duly considered Petitioner's comments related to the pH and aluminum limits, but ultimately maintained the proposed limits so that the permit would satisfy the Region's obligation to comply with state WQS and other applicable requirements. The Region denied Keene's request to include a special permit condition preemptively approving a modified permit to reflect site-specific pH and aluminum limits, in the event Keene decides to move forward with a site-specific approach, on the basis that the Region should have an opportunity to evaluate those requests and subject any resulting proposal to modify the permit to public notice and comment.

The Region recalculated and revised the permit's copper limits in response to Petitioner's comment. The final permit limits for copper are the numerical limits requested in Petitioner's comment and are not in dispute. As with aluminum, the Region denied Keene's request to include a special permit condition to automatically modify the permit based on the development of site-specific copper criteria.

NHDES certified the permit under Section 401 of the Act the permit on August 18, 2020. *Ex. N*. On September 14, 2021, EPA issued the Permit, which Petitioner timely appealed.

V. ARGUMENT

A. The Region adequately explained its determination that the receiving water's low pH is not "due to natural causes" and the Board should uphold the Permit's effluent limit for pH.

There is no dispute in this case that the pH of the receiving water is less than 6.5 S.U., the lower bound of the pH range in the state WQS for Class B waters. N.H. Rev. Stat. Ann. 485-A:8 ¶ II and N.H. Code Admin. R. Ann. Env-Wq 1703.18(b) (acceptable range of 6.5-8.0 S.U., with one exception: "unless due to natural causes"); *Ex. D,* 22 ("…the receiving water is impaired for pH."); *Pet.,* 9 ("…the majority of samples for pH in the Ashuelot River are below a pH of 6.5"). The parties, however, diverge on technical grounds as to *why* the pH is lower, which is the essence of Keene's complaint. Keene concludes this low pH is due to natural causes and that, therefore, the natural causes exception in the WQS applies, whereas the Region and New Hampshire determined that this is not the case. *See generally Pet.* Sections III.A and V.B.I.; *Ex. D,* 22. In keeping with its theory, Keene asserts that its effluent need not fall within the numeric pH range set out in the WQS (6.5-8.0 S.U.). *Pet.* Section V.B.I. The Region's determination that the low pH of the receiving water is not "due to natural causes," in contrast, binds the Region to that 6.5-8.0 limit. *See* N.H. Admin. R. Ann., Env-Wq 1703.18(b).

Keene also asserts that because the receiving water has different pH than the effluent level required by the permit, this "significant delta" will harm aquatic life in the receiving water. *Pet.,* 18. By asserting that pH "deltas" are inherently harmful and therefore implying that effluent should always accord with the pH of a receiving water rather than with the numeric limits in the WQS, Keene essentially questions the wisdom of the WQS. Whether Keene's hypothesis is true, as a matter of fact, is irrelevant to the disposition of this dispute. The Region does not, as a matter law, have authority to deviate from an established WQS in drafting an NPDES permit, nor

does the Board, as a matter of jurisdiction, have the authority to evaluate the wisdom of the WQS in reviewing the Permit.

Finally, Keene argues that the Region did not fully consider its comments related to the draft pH effluent limit. The Region, however, thoroughly described its rationale in the RTC after considering all relevant comments. *Ex. D,* 22-23. Keene's Petition fails to grapple with this response, instead claiming that the Region must have neglected its procedural obligations because it did not adopt the positions advanced in Keene's comments. This fails to admit an alternative possibility—that the Region concluded, upon consideration and for reasons explained in the record, that Keene's legal and technical theories should not be embraced, because they lacked merit.

i. Keene and the Region reached different technical conclusions, and the Region's conclusion, adequately explained and rational considering all the evidence in the record, is entitled to deference.

New Hampshire has listed the receiving water as impaired for pH. *Ex. C; Ex. D,* 22 and *Ex. O* ("the receiving water is impaired for pH."). This fact alone, which the Region appropriately relied upon in drafting the permit, is sufficient evidence that the receiving water's low pH is not "due to natural causes." The WQS states "…the pH of class B waters shall be 6.5 to 8.0 S.U. unless due to natural causes." N.H. Admin. R. Ann., Env-Wq 1703.18(b). Put another way, a Class B water with a pH outside of the 6.5-8.0 range "due to natural causes" would not be on the 303(d) list for pH impairment, because it would not be in violation of the WQS.[4] The Region, following this logic, reasonably relied, in dispositive part, upon the existing 303(d) list to reach its technical conclusion that the receiving water's low pH is not due to natural causes. *See, e.g., In re Upper Blackstone*, 14 E.A.D. 577, 597 (EAB 2010) (holding that it is proper to

[4] The contrapositive is that if a water is on the 303(d) list for pH impairment, then the reason the water is outside the pH range is not "due to natural causes."

rely upon a 303(d) impairment listing when determining the need for a WQBEL and stating: "The Region correctly supported its decision by noting that Rhode Island has listed the… River on its section 303(d) list…").

The Region's conclusion is further supported in the record by NHDES's determination that, "NHDES is unable to precisely differentiate contributions of the natural and anthropogenic contributions to low pH. While there are signs of improvement there is ongoing anthropogenic acid deposition and… the long-term historical deposition has depleted the natural buffering capacity of soils and underlying geology." *Ex. D,* 22, *Ex. O*. In other words, it would be improper to conclude that the low pH is "due to natural causes" because there is at least one non-natural, anthropogenic factor – long-term historical acid deposition – that also "causes" it. Keene in its Petition does not dispute that "there is ongoing anthropogenic acid deposition" or otherwise engage with this idea in a meaningful way. Keene has manifestly failed to carry its heavy burden of demonstrating grounds to review this technical determination by the Region. *See In re Envtl. Disposal Sys., Inc.,* 12 E.A.D. at 292 (Petitioner must present "sufficiently specific or compelling evidence or argument that would cast doubt on the thoroughness or rationality of the Region's technical evaluations and conclusions.").

Keene cites the "lack of clarity" as to the causes of low pH as evidence that "the Board must remand this permit condition to the EPA for further action." *Pet.,* 17-18. However, this "lack of clarity" is not a fatal procedural flaw, as so framed by Keene, but rather a key consideration in the Region's permitting decision. As described elsewhere in this section, because the 303(d) list and the NHDES statement in the administrative record precluded the Region from determining, with a reasonable measure of certainty, that the natural cause exception in the WQS applied, it was bound to apply the WQS's 6.5-8.0 S.U. range.

Furthermore, the Region may impose a permit limit even if it has not precisely identified all of the causes of low pH, given the precautionary principles embedded in the Act. *See Upper Blackstone*, 14 E.A.D. at 606 ("…scientific uncertainty is not a basis for delay in issuing an NPDES permit."); *In re Dominion Energy Brayton Point, LLC,* 13 E.A.D. 407, 426 (EAB 2007) ("In the face of unavoidable scientific uncertainty, the Region is authorized, if not required, to exercise reasonable discretion and judgment."). Because it had identified at least one non-natural cause of low pH, the Region reasonably concluded that the low pH is not "due to natural causes" and therefore imposed a 6.5-8.0 S.U. limit.

In support of its position, Keene relies upon data from several VRAP reports from 2007 through 2010. *Pet.*, *e.g.,*9; *Ex. P, Ex. Q, Ex. R, Ex. S.* Although the VRAP reports do describe, in the segments quoted by the Petition, that the low pH in the Ashuelot River is "likely" due to natural causes, this inconclusive information from over a decade ago conflicts with the more recent 303(d) determination and NHDES determination that formed the basis for the Region's technical determination. *Id*. Though Keene would prefer otherwise, the Region had neither any obligation nor reason to elevate the import of older, non-binding VRAP report statements over a newer, more relevant 303(d) determination. This determination deserves deference. *See, e.g., In re Town of Ashland Wastewater Treatment Facility*, 9 E.A.D. at 667 ("…clear error or a reviewable exercise of discretion is not established simply because the petitioner presents a difference of opinion or alternative theory regarding a technical matter.").

Because the exception for "natural causes" is the only one contained in the pH WQS for Class B waters, and because the Region's determination that this exception does not apply is entirely appropriate for deference, the Permit simply must ensure compliance with the default 6.5-8.0 pH limit. 40 C.F.R. § 122.4(d) ("no permit may be issued… When the imposition of

conditions cannot ensure compliance with the applicable water quality requirements of all affected States"); *see also, e.g., In re City of Marlborough*, 12 E.A.D. 235, 250 (EAB 2005) ("a mere possibility of compliance does not 'ensure' compliance.").

ii. Critiques of New Hampshire's WQS and 303(d) list are irrelevant and improper in this appeal.

Any challenges to the underlying wisdom of that 6.5-8.0 pH range prescribed by the WQS is both irrelevant and improper in this forum. So too are any challenges to the state's prior determination that a receiving water is impaired. An NPDES permit proceeding is not the appropriate forum to challenge the WQS or 303(d) lists driving the Region's calculation of effluent limits.

In suggesting the permit's pH range– the pH range specifically prescribed by the WQS – is harmful, Keene is effectively challenging the WQS itself.[5] By Keene's logic, effluent discharged into a water which has low (or high) pH for *any* reason must match that low (or high) pH because pH "curtain walls" (that is, abrupt changes in pH) are inherently harmful.[6] New Hampshire's WQS for pH, of course, only excepts from the 6.5-8.0 range those waters with low pH due to one specific reason: natural causes. Had New Hampshire believed that "curtain walls" were inherently harmful, they would have described the exception in their WQS as for waters with pH outside the 6.5-8.0 range for any reason at all. They did not. Keene may not question the wisdom of New Hampshire's WQS in an NPDES permit appeal before the Board. *See, e.g., In re City of Moscow,* 10 E.A.D. at 160-161 (Board review "does not ordinarily extend to

[5] For the first time in this permit proceeding, the Petition also argues in some detail that the pH limit "is in contravention of NHDES's and EPA's twin directives [to] provide for the 'protection and propagation of fish, shellfish, and wildlife.'" *Pet.,* 19-20 (citations omitted.) For the Region or the Board to entertain this argument, Keene would have needed to raise it during the public comment period, and there is no reason Keene could not have done so. 40 C.F.R. § 124.13.

[6] Likewise, the Petition's entirely new argument that "aquatic life in the Ashuelot River is adapted to the naturally low pH conditions…" (Pet., 10) must fail. 40 C.F.R. § 124.13.

considerations of the validity of prior, predicate regulatory decisions that are reviewable in other fora.") (citations omitted).

Keene's arguments also implicitly question another predicate regulatory decision reviewable in another forum: New Hampshire's 303(d) list which includes the receiving water as impaired for pH. As discussed above in subsection *i*, absent any new information indicating otherwise, the fact that the receiving water is included on this list lays to rest any argument that the water's low pH is "due to natural causes." Keene's Petition improperly attempts to revive this argument. *Id.*

iii. The Region duly considered the comments and adequately explained its rationale for imposing the permit's pH limit.

Keene made several claims that the Region failed to adequately consider and respond to its comments. For example, Keene claims that the Region "failed to cogently explain its basis for concluding that the receiving water is impaired for pH in the face of… conflicting data and conflicting statements made by NHDES." *Pet.,* 16. It is indisputable that the water segment is impaired – New Hampshire has included it on its 303(d) list, a list approved by EPA. *Ex. C, Ex. J*. A document or statement expressing that the Region or the state cannot precisely determine why the water is impaired does not negate the fact that it is, in fact, impaired. The Region has no obligation in an NPDES permit proceeding to look behind the face of a 303(d) listing to determine the precise causes of the impairment. It is entirely proper to rely on that existing 303(d) list and describe a water body on that list as "impaired." *See, e.g., Upper Blackstone*, 14 E.A.D. at 597. There is no basis for Keene's claim that the Region failed to adequately explain its determination that the receiving water is impaired.

Similarly reflecting a misunderstanding that an NPDES permit proceeding is an appropriate forum to debate merits of a 303(d)-impairment listing, Keene claims that the Region

"ignored" "reams of data from 2007 to 2019." *Pet.*, 17.[7] These data, summaries of which are reproduced in the Petition, simply demonstrate that the water segment has a pH different from the range expressed in the WQS. *See* Petition Tables 1-3 (which show pH ranges and values below 6.5 and summarize other tables provided during the public comment period) and Env-Wq 1703.18(b) (6.5 is lower end of pH range). This is not new information. As described above in subsection *i*, the very fact that the water segment is listed as impaired necessarily implies that it is, absent any new information indicating otherwise. Keene relies on this information—in its comment and in its Petition—to support its argument that the water segment is "naturally" impaired. But nothing in the "reams" of data indicates *why* the pH samples are low. The only conclusive information is that it has pH values below the desired range. The Region, already fully acknowledging that the water is "impaired" (*Ex. D,* 22), had no obligation or reason to specifically comment on the data provided by Keene. *See In Re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 579-580 (EAB 2006) ("…even if we were to find that the Region did not respond to comments about one specific study, this would not be fatal as the Region's rationale… was well supported by several studies, not just one.")

Keene also claims that the Region failed to consider "years of VRAP collected data presented in NHDES reports." *Pet.*, 17. That the Region did not accept the propositions contained in the reports does not mean the Region did not consider them. *Brayton Point*, 12 E.A.D. at 579 ("The fact that the Region adopted none of Petitioners' comments on these permits is not in itself indicative of error, especially when the comments were primarily technical in nature and raised issues subject to genuine disagreement by experts."). As described above, the

[7] Keene's assertion that it is appropriate to use these "site-specific data to develop the appropriate effluent limit" because "so much" of it is "available" (Petition pg. 17, fn 7) is another new argument which was reasonably available to Keene, but not raised, during the public comment period. The Board may not consider it. 40 C.F.R. § 124.13.

Region simply determined that two more contemporary pieces of the record were more persuasive: the 2018 303(d) impairment determination and the recent determination by NHDES (*Ex. O*). In its Petition, Keene fails to grapple with these factors which the Region laid out in the RTC. Keene does not explain why, for example, the Region should have relied on the conclusions in the VRAP reports instead of the 303(d) determination or the NHDES determination. Instead, Keene simply reiterates the same points made in comments already considered by the Region. The Region clearly did not fail to consider Keene's comments. More accurately, Keene failed to meaningfully engage with the Region's response those comments.

Finally, Keene claims that the Region "flatly ignored Keene's comments regarding the negative impacts associated with EPA imposition of an effluent limitation for pH that is higher than that of the receiving water." *Pet.,* 18. As described above, because the Region did not reach a technical conclusion that the low pH was "due to natural causes," it was bound by the numeric WQS limit of 6.5-8.0. Also as described above, any comments challenging the wisdom of the WQS—with which the Region is legally obligated to ensure the permit's compliance—are irrelevant and inappropriate during both the public comment process and the Board's review now. Because these comments were beyond the scope of this NPDES permit, the Region had no obligation to respond to them. *See* 40 C.F.R. § 124.17(a)(2) (the Region need only respond to "significant comments."); *see also Citizens for Clean Air v. EPA,* 959 F.2d 839, 845 (9th Cir. 1992) ("comments must be *significant* enough to step over a threshold requirement of materiality before any lack of agency response or consideration becomes of concern.") (emphasis in original) (citations omitted).

B. The Region's decision to base the Permit's aluminum limit on the currently effective NH WQS was consistent with the Act and rational considering all the information in the administrative record.

EPA must publish and periodically update ambient water quality criteria reflecting the "latest scientific knowledge" for states to use in their development of water quality criteria. CWA § 304(a). New Hampshire based its existing, EPA-approved Total Recoverable Aluminum criterion on one such publication, *Ambient Water Quality Criteria for Aluminum*, EPA-440/5-86-008, Aug. 23, 1988 ("1988 Guidance"), *Ex. T.* Keene contends that the Region should have based the aluminum limit on the more recent *Final Aquatic Life Ambient Water Quality Criteria for Aluminum*, EPA 822-R-18-001, Dec. 2018 ("2018 Guidance"), *Ex. U* which advanced an alternative methodology for calculating aluminium limits. In short, Keene argues that the Region committed reviewable error by failing to utilize EPA's "own current standard," *i.e.*, the 2018 Guidance, instead of New Hampshire's fully-effective, EPA-approved WQC for that pollutant. *Pet.,* 20.

Keene, in its Petition, ignores the Region's response that EPA is bound to apply New Hampshire's WQS, and instead dwells, just as it did it in comments, on a technical comparison between EPA's 2018 Guidance and the applicable aluminum WQC. By merely restating their grievances, Keene has procedurally defaulted and failed to identify a basis for review. *In re Springfield*, 18 E.A.D. at 439 (It is insufficient to "merely… reiterate comments previously submitted on the draft permit.").

Even if all of Keene's technical assertions were correct—a matter of ongoing technical and scientific evaluation by NHDES as it considers whether to revise its aluminum criteria—its contention that the Region erred by applying New Hampshire's WQS in lieu of non-binding EPA guidance is plainly contrary to the Act, its implementing regulations, and Board precedent construing those authorities, as the Region will demonstrate below.

Keene's complaint, however, fails to clear an even more fundamental threshold. Keene contests the Final Permit's aluminum limit by questioning the validity of EPA's 1988 recommended aluminum criteria, on which New Hampshire's aluminum WQC are based. Such an argument is indistinguishable from a challenge to the WQC themselves, a matter outside the Board's jurisdiction. By itself, this jurisdictional infirmity is fatal to any request for review.

i. The Board lacks jurisdiction over challenges to WQS or EPA's previous approval of them.

As detailed in Section II above, the regulations governing NPDES permit appeals prescribe the scope of the Board's jurisdiction by granting the Board authority to hear challenges to contested permit conditions. 40 C.F.R. § 124.19(a)(4)(i). The regulations do not confer jurisdiction over challenges to "the validity of prior, predicate regulatory decisions that are reviewable in other fora." *In re City of Moscow*, 10 E.A.D. at 160-61; *In re City of Hollywood*, 5 E.A.D. 157, 175-76 (EAB 1994) (declining to review challenges to EPA's approval of state WQS and explaining that "threshold issues pertaining to whether the Agency may have erred in approving the standard in the first instance are necessarily beyond our jurisdiction"); *U.S. Steel Corp. v. Train*, 556 F.2d 822, 835 (7th Cir. 1977), *overruled on other grounds by City of West Chicago, Ill. v. U.S. Nuclear Regulatory Comm'n,* 701 F.2d 632, 644 (7th Cir.1983) (EPA "had no authority to consider challenges to the validity of…state water quality standards" in the context of a permit proceeding); *see also Roosevelt Campobello Int'l Park Comm'n v. EPA*, 684 F.2d 1041, 1056 (1st. Cir. 1982) ("…federal courts and agencies are without authority to review the validity of requirements imposed under state law…"). Keene's claim that "state WQS must be based on 'sound scientific rationale,' which New Hampshire's aluminum chronic criterion is not," *Pet.,* 21, improperly invites the Board to step beyond its jurisdiction and opine on the

merits of the WQS. As a category, Keene's attacks on the scientific validity of the existing criteria set forth in the Petition, *passim*, present no basis for Board review.

Turning as it does on the scientific adequacy of New Hampshire's WQC for aluminum or EPA's 2021 approval of it under CWA § 303, Keene's challenge to the WQS underlying the Region's calculation of the aluminum limit must be denied for want of jurisdiction.

ii. The Region is bound to establish permit requirements based on existing, EPA-approved WQS, not on EPA guidance.

Keene's claim, in addition, founders on a mistaken understanding of the role EPA-approved WQS play in the Act. Put simply, CWA requires NPDES permits to include effluent limitations as stringent as necessary to ensure compliance with, *inter alia*, the State WQS in effect at the time of permit issuance, *not*, as Keene believes, with EPA guidance. CWA §§ 301(b)(1)(C), 402(a)(1), (2). This command is reflected in EPA's implementing regulations, which require the permit issuer to include:

> any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318 and 405 of CWA necessary to:
>
> > (1) Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.

40 C.F.R. § 122.44(d)(1). A water quality standard is defined as:

> provisions of State or Federal law which consist of a designated use or uses for the waters of the United States and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Act.

Id. § 131.3(i). The dual purposes of WQS are to "establish[] the water quality goals for a specific water body and serve as the regulatory basis for the establishment of water-quality-based treatment controls and strategies beyond the technology-based levels of treatment required

by sections 301(b) and 306 of the Act." *Id.* § 131.2. Only WQS that have been approved by EPA are applicable for CWA purposes, a position confirmed by regulatory preamble. 40 C.F.R. § 131.21(c); *see* 65 Fed. Reg. 24,641 (April 27, 2000) ("This rule specifies that new and revised standards adopted by States and authorized Tribes after the effective date of today's rule become 'applicable standards for Clean Water Act purposes' only when approved by EPA.")

In keeping with this framework, the regulation governing the development of WQBELs requires the permit writer to "ensure that[]… [t]he level of water quality to be achieved by limits on point sources established under this paragraph is *derived from*, and complies with all applicable water quality standards[.]" (emphasis added). 40 C.F.R. § 122.44(d)(1)(vii)(A). The meaning of this regulatory language is plain, but EPA saw value in further reinforcing it through an authoritative interpretation in the preamble: "Deriving water quality-based effluent limits from water quality standards is the only reliable method for developing water quality-based effluent limits that protect aquatic life and human health." 54 Fed. Reg. 23,868-01, 23879 (June 2, 1989). In short, Keene's suggestion that the Region should have applied a methodology exogenous to the existing, EPA-approved WQS for the receiving waters is fundamentally inconsistent with the Act and the regulations implementing it.

Board precedent further affirms the binding centrality of WQS in the derivation of effluent limits. *In re City of Attleboro Wastewater Treatment Plant*, 14 E.A.D. 398, 457-458 (EAB 2009) is squarely on point and dispenses with Keene's argument as a matter law. There, the Board explained that "[t]he permit issuer's obligation is to ensure that the permit contains effluent limitations and conditions that comply with state [WQS]…, not EPA's guidance." *Id.* at 438 (citations omitted); *see also In re City of Moscow*, 10 E.A.D. at 166 (declining to follow

state's "as applied" standard "until such time that [the state] actually changes its water quality criteria…").

Keene's efforts to supplant the operative WQS with guidance may simply reflect a basic misunderstanding of the Act. Keene repeatedly conflates EPA-approved state water quality criteria (which have regulatory effect) with EPA recommended criteria (which do not.) For example, Keene asserts that "use of the current standard would not violate WQS," and "[r]egardless of the outdated guidance's flaws, it does not apply to the receiving waters with the pH below 6.5, like the Ashuelot, whereas EPA's current guidance does[,]" *Pet., e.g.,* 20, 22.[8] The 2018 Aluminum Guidance, however, did not supersede the applicable WQC for aluminum. The Board has clearly delineated the function of guidance:

> While guidance documents are valuable tools in aiding the Agency's deliberative processes where regulations may lack details about their implementation, they do not confer any rights nor are they binding. *See, e.g., In re Cardinal FG Co.*, 12 E.A.D. 153,162 (EAB 2005) (noting that guidance document used by Agency in determining Best Available Control Technology under the Prevention of Significant Deterioration permitting program is not a binding Agency regulation and, as such, strict application of the methodology described in the guidance document is not mandatory); *In re Wyoming Refining Company*, 2 E.A.D. 221, 225 (Adm'r 1986) (explaining that internal documents do not confer any substantive or procedural rights upon the public).

In re City of Attleboro, 14 E.A.D. at 438, fn 71. As compared to a statutorily controlling WQS, guidance is "extraneous." *Id* at 438. Unsurprisingly, the very document that Keene contends the Region is *bound to follow* says just the opposite:

> This document provides information to states and tribes authorized to establish water quality standards under the Clean Water Act (CWA), to protect aquatic life from toxic effects of aluminum. Under the CWA, states and tribes are to establish water quality criteria to protect designated uses. **State and tribal decision makers retain the discretion to adopt approaches that are scientifically defensible that differ from these criteria to reflect site-specific conditions. While this document contains the Environmental Protection Agency's (EPA) scientific recommendations regarding**

[8] See also section heading B, *Pet*., 11, "Use of EPA's current recommendations for calculating the effluent limit for Total Recoverable Aluminum would not violate WQS."

> **ambient concentrations of aluminum that protect aquatic life, the Aluminum Criteria Document does not substitute for the CWA or the EPA's regulations; nor is it a regulation itself. Thus, the document does not impose legally binding requirements on the EPA, states, tribes, or the regulated community, and might not apply to a particular situation based upon the circumstances**.

Ex. U, iii (emphasis added). Moreover, although Keene mistakenly contends that EPA's 1988 recommended criteria are "obsolete," the advent of techniques or methodologies based on new and evolving understandings of science does not, alone, render existing methods scientifically unsound for the purposes of CWA permitting. *See, e.g., Ethyl Corp. v. EPA*, 541 F.2d 1, 27-28 (D.C. Cir. 1976) (en banc) ("[R]ecognizing . . . the developing nature of [the field]…[t]he [EPA] Administrator may apply his expertise to draw conclusions from suspected, but not completely substantiated, relationships between facts, from trends among facts, from theoretical projections from imperfect data, from probative preliminary data not yet certifiable as 'fact,' and the like.").

Consistent with the foregoing, EPA summarized the binding legal framework for its decision in the Response to Comments:

> As explained in the Fact Sheet, although EPA has promulgated new aluminum criteria recommendations, the State of NH has yet to revise State WQS to incorporate these criteria recommendations. An NPDES permit must ensure compliance with the state WQS currently in effect, not those which may be implemented in the future. See 40 C.F.R. §§ 122.4(d), 122.44(d). The Draft Permit established a limit for effluent aluminum because, as shown in Appendix B of the Fact Sheet, EPA determined that there is reasonable potential that the effluent levels could cause or contribute to a violation of New Hampshire's current aluminum criteria, i.e., the WQS with which the permit must ensure compliance EPA appreciates the instream sampling that the City of Keene has conducted which may be used to support a revised aluminum limit, if necessary, if and when New Hampshire adopts new aluminum criteria. These data use an approach which is based on EPA's new aluminum criteria recommendations, which have yet to be incorporated into the State WQS. If New Hampshire updates its WQS and EPA finds that there is no reasonable potential to violate those new WQS, the data may be used in the future to support an alternative limit or to revert to a monitor-only requirement.

Ex. D, 25. Although the Region would have been free to simply impose a WQBEL based on the existing aluminum criteria—again, the only currently legally operative criteria—it sought to

accommodate Keene's concern and provide a reasonable mechanism to address the possibility that criteria *might* at some point be revised:

> Because the aluminum limit is a new limit in the Final Permit, it includes a three-year compliance period. This means that, as noted in Permit Section I.G.2, the limit does not take effect until three years after the effective date of the permit. As also described in Section I.G.2, the permittee may apply to further extend the effective date and/or modify the limit under certain circumstances.

Ex. D, 25.

When confronted with this explanation, Keene simply ignores EPA's response and reiterates its grievances, including through arguments that were reasonably available during the public comment period but were, in fact, never raised.[9]

Keene argues, for example, that "the 1988 chronic criterion was based on a dataset of only two species of invertebrates. The updated chronic criterion is based on data from nine new species." *Pet.,* 11-12. This argument was not only impermissibly raised for the first time in the Petition, contrary to 40 C.F.R. §§ 124.13 and .19(a)(4)(ii), but also only amounts to another improper challenge to the existing criteria and the science underlying it. *See In re City of Moscow*, 10 E.A.D. at 160-161.

Keene's critique that "[t]he 1988 criteria did not consider the variable effects of water chemistry, but simply specified that the recommended criteria only applied to a pH range of 6.5 to 9.0[,]" (quoting from the 2018 Guidance) is likewise untimely, brought in the improper forum and, moreover, lacking in context. *Pet*. 11, 22. Even if this argument were properly before the Board, it misses the mark. While it is true that the 1988 criteria development document did not

[9] Having waived any arguments that would directly grapple with the Region's record positions by failing to raise them in its Petition, Petitioner is of course ***foreclosed*** from pursuing these matters by introducing new arguments or materials in a reply brief. 40 C.F.R. § 124.19(c)(2). This is true in all cases where, presented with the Region's response, Keene made the choice to restate or repackage its comments.

evaluate impacts from aluminum in waters with pH below 6.5 S.U., the 1988 Aluminum Guidance explains, importantly, why this is so: "This document addresses the toxicity of aluminum to freshwater organisms in waters in which the pH is between 6.5 and 9.0, because the water quality criterion for pH (U.S. EPA 1976) states that a pH range of 6.5 to 9.0 appears to adequately protect freshwater fishes and bottom-dwelling invertebrate fish food organisms from effects of the hydrogen ion." *Ex. T,* 1. In other words, the 1988 guidance did not include waters with pH below 6.5 S.U. because at such pH levels the low pH itself would impact aquatic life, not because aluminum is not toxic at low pH levels.

In one instance, Keene elaborates on its comment that, based on its use of EPA's aluminum criteria calculator, which it acknowledges results in a "hypothetical" criteria, the effluent would not have reasonable potential to cause or to contribute to a water quality standards violation. *Pet*., 12-13. Keene improperly applies a methodology based on guidance rather than the WQS in effect, rendering its analysis irrelevant. Therefore, the Region had no reason to validate the calculation. *See* 40 C.F.R. § 124.17(a)(2) (the Region need only respond to "significant comments").

Nor could it have in any meaningful way, because it is not until its Petition that Keene identifies the source of the inputs used for this calculation: data related to the Hillborough, New Hampshire, POTW site-specific criteria. *Adams v. EPA*, 38 F.3d 43, 51 (1st Cir. 1994) ("[C]omments must be significant enough to step over a threshold requirement of materiality before any lack of agency response or consideration becomes of concern…This threshold of materiality standard is satisfied when comments are presented in a way which could reasonably have permitted the agency to examine those contentions.") (citations omitted.) In addition to being insignificant, Keene's argument is also untimely, as it is based on material that

obviously could have been brought to the Region's attention during the public comment period, so is procedurally barred. *In re Christian Cnty. Generation Station, LLC*, 13 E.A.D. 449, 459-460 (EAB 2008) (denying review of a petition based on petitioner's failure to raise a reasonably ascertainable issue during the public comment period).[10]

In addition to these irrelevant and improper scientific assertions, Keene's passing reliance on case law does nothing to advance their claims and, in fact, undermines their position. With virtually no explanation, Keene generally cites to two cases, neither of which are on point. *Sanitary Board of City of Charleston, W.V. v. Wheeler*, 918 F.3d 324 (4th Cir. 2019), addresses EPA's role under 40 C.F.R. 131 in approving *proposed* WQS, while the instant appeal turns on application of existing, approved standards. Keene's reliance on *N.R.D.C. v. EPA*, 16 F.3d 1395 (4th Cir. 1993) fails for this same reason. Further undermining their position – and supporting the Region's argument that challenges to predicate regulatory decisions are *not* properly brought before the Board – these two cases were decided by federal courts. Keene's reliance on *Sierra Club v. EPA*, 671 F.3d 955, 968 (9th Cir. 2012), for the generic proposition that federal courts "should not silently rubber stamp agency action that is arbitrary and capricious in its reliance on old data without meaningful comment on the significance of more current compiled data[,]" is wildly off point. *Sierra Club* is a federal court case reviewing of State Implementation Plans under the *Clean Air Act* and does not address the dispositive fact that EPA was legally compelled under the *Clean Water Act* to apply the existing, EPA-approved WQS when fashioning necessary WQBELs in Keene's permit. Additionally, the agency action that that court refused to "silently

[10] Substantively, although Keene characterizes this site and data as "analogous," that casual comparison ignores the fact that the inputs were not from the Ashuelot River but from the *Contoocook River*. As one would expect, that difference in the inputs results in drastically different criteria. The resulting calculation does not help Keene. Applying the median background data in the Ashuelot River (for pH, hardness and DOC) that Keene submitted in their comments (at Appendix E), the resulting chronic criterion is *51 ug/L*, not analogous to the criterion of 320 ug/L cited in their comment and even lower than the 87 ug/L criterion Keene is objecting to.

rubber stamp" was one for which the agency failed to "provide an explanation for its choice," whereas here, the Region has thoroughly described the explanation for its actions, though the Region acknowledges that the Keene may disagree with it. *Id.*

Finally, Keene's reliance on *In re Town of Newmarket*, 16 E.A.D. 182 (EAB 2013) for the unremarkable proposition that the Region has the "right to make a site-specific determination when selecting an effluent limit," (*Pet.*, 17, n. 7) proves the very point that the Region has been trying to register, without avail, since publication of the Fact Sheet: when developing WQBELs, the existing, EPA-approved WQS apply. In *Newmarket*, the Board upheld the Region's translation of existing, EPA-approved narrative nutrient criteria using relevant data and other information in the permit record, which is precisely what the Region did here, and rejected an argument that the Region was bound to apply the terms of a non-binding Memorandum of Agreement in lieu of the applicable WQS, which Keene argues would have been the proper course of action. *Id.* at 229 ("[R]egardless of NHDES' intent in entering into the MOA…EPA cannot ignore its independent [statutory] obligation…to ensure that the Newmarket permit complies with applicable water quality standards.").

Given all of the foregoing, it is evident that Keene has left the Region's dispositive analysis of the applicable legal framework for decision making unrebutted, leaving the Board "with a record that supports the Region's approach." *In re Westborough and Westborough Treatment Plant Board*, 10 E.A.D. 297, 311 (EAB 2002). The Board should deny review.

iii. EPA adequately accounted for Keene's request to collect new site-specific data on acid-soluble and Total Recoverable Aluminum.

In addition to its request to supplant the applicable, EPA-approved criteria for aluminum in the Ashuelot River, Keene requested that it be allowed to collect acid-soluble data to support an adjustment of the existing aluminum criteria, which unlike the 2018 Guidance are based on

acid soluble aluminum. *Pet.,* 24-25. Keene further asked the Region to include a "special condition that Keene has the *option* to submit a request to pursue a preliminary study evaluating the fraction of acid soluble aluminum to total recoverable aluminum," and that "[*i]f* Keene pursues this type of a study, additional language is requested to be in the Final Permit that the results of the study would be accepted and that a permit modification may be made to reflect site-specific limits." *RTC* at 25. (emphases added).

The Region responded that it had no objection to such a data collection effort and that it would consider such an adjustment through a permit modification process if those data are collected and become available. The Region went on to offer an advisory opinion on the wisdom of that investment given the ongoing aluminium criteria revision process, a contingency for which it has reasonably accounted by forestalling the immediate imposition of the limit through a compliance schedule. In so responding, EPA stated: "The DOC, pH, and hardness calculations [based on the 2018 criteria] account for the true toxicity of the acid soluble fraction on test species." *Ex. D,* 26. Keene, in its Petition, "agree[d], which is why use of an obsolete standard that does not take these calculations into consideration is clear error and an abuse of discretion." *Pet*., 24. EPA's statement, which could be read to imply that New Hampshire's aluminum criteria do not represent the "true toxicity" of acid-soluble aluminum, was inartful—all water quality criteria may, of course, be refined as science develops and new studies are carried out with new species, but the existing criteria remain valid and applicable components of WQS upon which WQBELs must be based. The fact that alternative methods to calculate protective criteria have been developed by EPA and are now being considered by New Hampshire does not impact the permit result. *In re Town of Concord Dep't of Public Works*, 16 E.A.D. 514, 540 (EAB 2014) (advisory views by the Region are not subject to Board review). The application of New

Hampshire's existing, applicable WQS to derive the relevant WQBEL disposes of Keene's challenge to the aluminum limit.[11]

The Region's decision not to include a special condition to "accept" and "modify" the permit based on hypothetical data was well within the Region's discretion. Keene's claim that the Region "failed to account for site-specific data on acid soluble and [aluminum]" is incorrect. The Region must base its decision on all data reasonably available at the time of permit development. *Upper Blackstone Water Pollution Abatement District v. EPA*, 690 F.3d 9, 22 (1st Cir. 2012) ("[N]either the CWA nor EPA regulations permit the EPA to delay issuance of a new permit indefinitely until better science can be developed, even where there is some uncertainty in the existing data."). There was no acid-soluble data available at that time, Keene did not submit any such data in their comments, and the Region still does not have any such data to consider. Rather than rush to judgment on the adequacy of a dataset not yet before it, the Region explained that the data collection and evaluation process would be taken in a deliberate, stepwise manner:

> DES would consider a study to evaluate the fraction of acid soluble aluminum to total recoverable aluminum. The scope needs to be reviewed and approved by the DES Watershed Management Bureau. If the result were also approved by DES, EPA would consider a permit modification to increase the limit based on this new information.

Ex. D, 26. The Region outlined a process for a potential future adjustment in the permit limit should Keene one day seek to collect further data. Keene does not explain why this response was insufficient, other than to again attack the validity of the existing criteria—a bootless attack, for the reasons described above. Given the highly conditional nature of Keene's request ("Keene has *the option* to submit a request to pursue a *preliminary* study evaluating the fraction of acid

[11] Insofar as Keene is suggesting that the existing criteria is too stringent given new recommended criteria, which might lead to a less stringent limitation, this line of argument is unavailing given the logic of the Act. "As recognized by section 510 of the Clean Water Act, States may develop water quality standards more stringent than required by" EPA. 40 C.F.R. § 131.4(a).

soluble aluminum to total recoverable aluminum,"; "*[i]f Keene pursues this type of a study*, additional language is requested to be in the Final Permit…"), *id.* at 26, the Region's wait-and-see approach, rather than a decision to hardwire permit modification into the Final Permit, was both adequately explained and reasonable.

C. The Region's decision not to include a permit condition that would trigger automatic modification if site-specific water quality criteria for TRC are developed in the future was consistent with the Act, reasonable, and cogently explained.

Similar to its argument that the Region improperly denied its request for an aluminum special condition, Keene makes the misguided contention that the Region abused its discretion by deciding to await the results of a potential site-specific criteria development process for TRC rather than include a special permit condition stating that those results "will be accepted and permit modification may be made to reflect revised effluent limits." *Pet.,* 25-27; *Ex. D,* 28.

The Region's decision not to commit to a future permit outcome based on non-existent information from a criteria development process that has not yet commenced, and indeed may never commence,[12] was cogently explained and is fully consistent with the Act and its implementing regulations. Contrary to Keene's assertion that the Region "fail[ed] to address Keene's comments," *Pet.,* 25, the Region gave them due consideration, but rejected them. In its explanation, the Region identified the distinction between the criteria development and WQBEL derivation:

> Keene may submit a study plan for site specific-copper criteria to NHDES for review, in accordance with Env-Wq 1703.22(d). If the plan and results are approved by NHDES, the revised criteria may be used to modify the permit limits. NHDES interprets Env-Wq 1703.22(d) for WER or BLM dependent criteria in a manner similar to Env-Wq 1703.22(i) for hardness dependent metal criteria. That is, once the WER, BLM or

[12] Keene itself acknowledges the conditional status of the site-specific criteria development process. ("*If* Keene decided to move forward with a site-specific approach, Keene also respectfully requests that additional language be included in the Final Permit…") (emphasis added). Furthermore, Keene has not informed EPA of any estimated timeline for commencing the process, much less completing it.

> hardness dependent criteria is determined for a certain waterbody (or portion thereof), it automatically becomes the enforceable ambient criteria for that waterbody (or portion thereof) and can be used for computing effluent limits in WWTP discharge permits. There is no need to first formally adopt the criteria in the regulations. However, since conditions in the river and WWTP can change over time, all hardness, WER or BLM ambient criteria should be re-evaluated approximately every five years when NPDES permits are reissued. However, EPA notes that any potential change in the permit limit based on site-specific copper criteria would also be subject to anti-backsliding requirements at CWA §§ 402(o) and 303(d)(4).
>
> EPA does not believe that it would be reasonable to include a special permit condition accepting a future permit modification request, without first having the opportunity to evaluate that request. To do otherwise would be conjectural. EPA's mind is open and it has not prejudged the merits of a future request, if any.

Ex. D, 30-31. The Region reasonably declined the invitation to endorse the results of a prospective site-specific criteria process and to concur in advance that information yielded by that process would meet the legal requirements for altering the terms of the permit.

In its Petition, Keene conflates the development of a site-specific criterion with development of a new WQBEL based on that criterion. The processes are distinct. That is, even if Keene were to successfully complete a study resulting in the immediate adoption of a site-specific criterion, and even if the Region were to prospectively endorse the results of that study, a permit writer would still need to complete calculations and other analyses using that new criterion before the permit's TRC WQBEL could change. The Region would need to derive a protective WQBEL from the new criterion, and to the extent it is less stringent than the existing WQBEL, ensure it complies with the other requirements of the Act, including those relating to anti-backsliding and antidegradation. *Ex. D,* 30. This is not a mechanical process, but one that requires the exercise of technical judgment by the permit writer and advice of legal counsel based upon actual information in the administrative record, not, as the Region pointed out,

"conjectur[e]."[13] *Id.* at 31. The Region further explained in its response that receiving water conditions are dynamic and require renewed assessment at regular intervals. *Id.* at 30. For these reasons, the requested, self-implementing permit modification is inappropriate.[14]

Not only would including a self-implementing special condition present logistical challenges as described above, but it would also impede the Region from carrying out its legal obligations. The Region has an independent duty to include permit limitations "necessary to meet water quality standards." CWA § 301(b)(1)(C); 40 C.F.R. § 122.44(d)(1), (5). Indeed, EPA regulations specifically prohibit the Region from issuing a permit "[w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States." 40 C.F.R. § 122.4(d). For this reason, the Board held that "a mere possibility of compliance does not 'ensure' compliance" as required by the statute and regulations, *see In re City of Marlborough,* 12 E.A.D. at 250. The Board has also explained that "[w]ithout an articulation by the permit writer of his analysis, we cannot properly perform any review whatsoever of that analysis and, therefore, cannot conclude that it meets the requirement of rationality." *In re DC MS4*, 10 E.A.D at 342-43. Keene's requested self-implementing special condition would deprive the Region of both its ability to evaluate – from a technical and a legal perspective – the new limit's compliance with the Act and its opportunity to articulate this

[13] Keene's cursory claim that their effluent is not toxic based on Whole Effluent Toxicity results—apparently to suggest that a future WER or BLM evaluation would determine the existing criteria to be overly conservative—is inapposite as well as insignificant, as measurements of additive or synergistic effects of the effluent do not bear on the need for limits on individual pollutants in the effluent subject to specific water quality criteria in NH WQS. *See Ex. D*, 22 (explaining independent applicability of individual WQC); *In re City of Attleboro Wastewater Treatment Plant*, 14 E.A.D. at 457-458, 461.

[14] Although under New Hampshire's interpretation a criterion developed through a BLM or WER study becomes the ambient criteria for that waterbody under state law and does not require further amendment of New Hampshire regulations, it also still "must be reviewed and approved by EPA, pursuant to Section 303(c)(3) of the Clean Water Act and 40 CFR Part 131, before [it] can be effective for CWA purposes" *Ex. A*, 5.

analysis. Adjusting the limit by operation of the permit would also shield this determination from public notice and comment, counter to the letter and spirit of Part 124 regulations.

Keene's proposed condition ill fits the statutory and regulatory regime for at least one more reason. Permit modifications may only be commenced upon the existence of certain causes. *See* 40 C.F.R. § 122.62(a). In the absence of a fully-concluded site-specific criteria process with a record ready for a permit writer's evaluation, it is simply too early to conclude that one of these causes would apply during the permit term.

In summary, Keene's proposed condition, which would trigger an automatic permit modification, cannot be squared with the substantive standards and record-based requirements applicable to the Region. Thus, the Region did not abuse its discretion by deciding not to include it.

VI. CONCLUSION

For the reasons stated herein, the Board should deny review of the permit.

REQUEST FOR ORAL ARGUMENT

The Region concurs with the Petitioner's request for oral argument because it believes it will assist the Board in its deliberations.

STATEMENT OF COMPLIANCE WITH WORD LIMITATIONS

I hereby certify that this Response to the Petition for Review contains fewer than 14,000 words, in accordance with 40 C.F.R. § 124.19(d)(3).

Dated by electronic signature

KRISTEN SCHERB

Digitally signed by KRISTEN SCHERB
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CERTIFICATE OF SERVICE

I hereby certify that on the date indicated below a copy of the foregoing Response to the Petition for Review and Statement of Compliance with Word Limitations, in connection with *In re City of Keene*, NPDES Appeal No. 21-03, was sent to the following persons in the manner indicated:

By electronic filing:

Mr. Emilio Cortez
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