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Via Electronic Filing

U.S. Environmental Protection Agency
Clerk of the Board
Environmental Appeals Board 1103M
1200 Pennsylvania Avenue, N.W.
East Building
Washington, D.C. 20460-0001

Re: Town of Newmarket Wastewater Treatment Plant
Permit Number: NH0100196
Appeal Number: NPDES 12-05

Dear Ms. Durr,

Please find attached Petitioners' Motion for Reconsideration and accompanying Certificate of Service regarding NPDES Appeal No. 12-05.

Sincerely,

/s/ *John C. Hall*

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

In re: Town of Newmarket	)	
NPDES Permit No. NH0100196	)	NPDES APPEAL No. 12-05

PETITIONERS' MOTION FOR RECONSIDERATION

Pursuant to 40 C.F.R. § 124.19(b), Petitioners, the Great Bay Municipal Coalition ("the Coalition"), hereby files this Motion for Reconsideration of the Environmental Appeal Board's (the "Board" or "EAB") December 2, 2103, Order ("Dec. 2nd Order") denying Petitioners' Petition for Review in the above captioned matter. For the reasons explained herein, reconsideration of the Dec. 2nd Order is appropriate as the Board clearly erred in (1) failing to consider all irrefuted factual information in the record, (2) determining that the Petitioners did not give specific citations to the administrative record in support of their arguments, (3) applying the incorrect standard of review and not following Board precedent which denied Petitioners of their due process rights, (4) incorrectly reporting the court's determination in *City of Dover v. EPA* and, consequently, dismissing the applicability of the Alaska Rule (40 C.F.R. § 131.21) in this case, (5) ignoring Petitioners' argument that a cause and effect demonstration must be provided to determine if a violation of the state narrative criteria due to nitrogen has occurred, and (6) plainly misapplying the SAB and EPA guidance pertaining to requirements for a defensible stressor-response analysis.

I. Standard of Review of Motions for Reconsideration

A motion for reconsideration must "set forth the matters claimed to have been erroneously decided and the nature of the alleged errors." 40 C.F.R. § 124.19(m). A motion for reconsideration will be granted where "the Board has made a demonstrable error, such as a mistake of law or fact."[1] *In re Knauf Fiber Glass, GmbH*, PDS Appeal Nos. 98-3 through 98-20, at 2 (EAB Feb. 4, 1999) (Order on Motions for Reconsideration). Moreover, the "reconsideration process 'should not be regarded as an opportunity to reargue the case in a more convincing fashion. It should only be used to bring to the attention of [the Board] clearly erroneous factual or legal conclusions.'" *In re Town of Ashland Wastewater Treatment Facility*, NPDES Appeal No. 00-15, slip op. at 2 (EAB Apr. 9, 2001).

II. Grounds for Reconsideration

a. The Board Must Determine that the Region's Decision is Rational in Light of *All* Information in the Record, Not Simply the Region's Conclusory Statements

In reviewing NPDES permit appeals, the Board:

> …examines the administrative record that serves as the basis for the permit to determine whether the permit issuer exercised his or her 'considered judgment.' … As a whole, the record must demonstrate that the permit issuer 'duly considered the issues raised in the comments' and ultimately an approach that 'is plainly rational in light of *all information* in the record.' On matters that are fundamentally technical or scientific in nature, the Board typically will defer to a permit issuer's technical expertise and experience, *so long as* the permit issuer adequately explains its rationale and *supports its reasoning in the administrative record*.

Dec. 2nd Order, at 5-6 (internal citations omitted) (emphasis added). Thus, the Board must evaluate whether the Agency's decision is "plainly rational in light of *all information in the*

[1] The Board's standard for granting a motion for reconsideration is similar to that employed by the Federal Courts. *See In re Peabody Western Coal Co.*, CAA Appeal No. 11-10, at 2 n.2 (EAB Apr. 17, 2012) (Order Denying Motion for Reconsideration) (*citing Publishers Res., Inc. v. Walker-Davis Publ'ns, Inc.*, 762 F.2d 557, 561 (7th Cir. 1985) ("Motions for Reconsideration serve a limited function: to correct manifest errors of law or fact or to present newly discovered evidence. Such motions cannot in any case be employed as a vehicle to introduce new evidence that could have been adduced during the pendency of the [original] motion. *** Nor should a motion for reconsideration serve as the occasion to tender new legal theories for the first time.").

record" and "its reasoning [supported] in the administrative record." *Id.* at 6 (emphasis added). Moreover, it is the Region's "responsibility to establish a permit effluent limit based on the best scientific information that is currently available." *Id.* at 50. When determining if the Agency abused its discretion, the Board will "uphold a permitting authority's reasonable exercise of discretion if that decision is cogently explained and supported in the record." *Id.*

In this case, the Board further noted that its review would entail the following:

> The Board first reviews the record … to determine *whether it provides adequate scientific support for the methodology and conclusions of the State's [2009] Report.* Most significantly, the Board *examines the record for support* for NHDES' conclusion that a water quality threshold of no more than 0.25-0.30 mg/l TN *is necessary* to protect eelgrass habitat in the Lamprey River and Great Bay Estuary.

Id. at 29 (emphasis added). Consequently, under this standard of review (1) EPA carries the burden to prove that a limitation is "necessary to protect eelgrass" and (2) this determination must be "rational in light of *all* information in the record." Therefore, it would be improper for the Board to simply cite to conclusory statements made by the EPA in its Response to Comments as the basis for refuting specific record information demonstrating that EPA's approach is misplaced (*i.e.,* not rational). Thus, the Board must reference specific evidence *relevant to Great Bay* that supports EPA's conclusion that a .30 mg/l TN is *necessary to protect eelgrass habitat*.

Moreover, if EPA relies on a document prepared by the State and the State admits the document does *not* prove TN caused any adverse effects on this system, EPA did not use the "best scientific information currently available" nor could its decision be "rational in light of all information in the record." Finally, where (1) the Petitioner has documented specific information confirming essential analyses were never conducted, (2) the State has admitted that the record did not show TN caused an impairment, (3) EPA admitted under FOIA it possessed *no records* showing the Petitioner's specific scientific claims were in error and (4) when essentially

"all information" (*e.g.*, opinions of other experts that evaluate the *specific* the data for *this* estuary) indicates stringent TN limits are not necessary to protect eelgrass habitat in the Lamprey River and Great Bay estuary, reliance on EPA's generalized averments to the contrary as the basis for supporting EPA's decision would be clear error.

b. The Board Erred in Finding that the Petitioners Did Not Give Specific Citations to the Administrative Record in Support of their Arguments

In several places in the Dec. 2nd Order, the Board stated that the Petitioners make "vague and unsupported allegations [that] are insufficient to sustain the Petitioner's burden of demonstrating clear error or abuse of discretion." *See* Dec. 2nd Order, at 46, *see also id.* at 48, 58 n.26, 70, 74; 40 C.F.R. §124.19(a) (The petitioner must "specifically state its objections to the permit and explain why the permit issuer's previous response to comments was clearly erroneous or otherwise warrants review."). For instance, the Board states "[t]he Petition does not identify the 'relevant [SAB] findings'" that would confirm the Region's analyses were deficient. Dec. 2nd Order, at 42. To the contrary, in its Petition, Petitioners included the exact relevant quotations from the SAB recommendations (Petition, at 92, 93) and explained in detail the specific SAB findings which were ignored in this case. *See* Petition, at 89-91; *see also* Petition at 9 (citing AR C.2. attachment 5), at 90 (citing AR D.3). Moreover, the Petitioners' Reply cites directly to and provides the quotations from the SAB findings. *See, e.g.*, Reply, at 2, fn 2; 13 n. 26.

In another instance, the Board found that "[t]he Petition does not identify what 'confounding factors' the Region and State failed to analyze or what analysis was required…." Dec. 2nd Order, at 46. To the contrary, the Petitioners identify multiple confounding factors that needed to be identified outlining the factors that must be considered to develop defensible criteria using stressor-response methods. *See* Petition, at 89-91; *see generally* Petition, at 57-60, 70-74. Petitioners also cite to the statement by Mr. Trowbridge of DES admitting that *no*

confounding analyses was conducted as part of the 2009 Criteria document. Petition, at 91 n. 79 (citing AR H.14 at 9-10).[2] Moreover, the Petitioners (as well as the Dec. 2nd Order, at 32-33) cite directly to analyses by Matt Liebman, an EPA official, who also noted that the necessary confounding factors analysis *was not sufficient for algal growth, transparency or dissolved oxygen*. Reply, at 19 n. 36 (citing A.R. H.72, at 3-5). Rather than analyze and refute the Coalition's evidence, it appears that the Board simply agreed with EPA's generalized statements that the DES analyses was sufficient and met the SAB recommendations. This approach fails to comply with the Board's duty to examine the evidence in the record to determine if EPA's position "is plainly rational" in light of all information in the record.

In response to Petitioners' assertion that the DES 2009 Criteria are fundamentally flawed and that the State's narrative standard requires a showing of causation (*i.e.*, a demonstration that the criteria are "necessary" to protect designated uses), the Board found that the "[t]he Petition does not provide specific testimony by Mr. Trowbridge supporting its assertion" and claiming that the Petitioners' characterization of the deposition testimony has no "sufficient support in the record." Dec. 2nd Order, at 47. To the contrary, Petitioners repeatedly provided the sworn deposition testimony of State officials. *See, e.g.*, Petition, at 21 (citing Deposition exhibits 88, 35, 80); at 44 n. 48 (citing AR H. 15 with specific page citations). Contrary to the Board's

[2] Mr. Trowbridge admitted that a confounding factors analysis was never conducted:

> **Q.** … With regard to the low DO relationship to chlorophyll-a, and your transparency relationship to total nitrogen, both of these graphs are just correlations, right; they do not show causation? **A.** That is correct. **Q.** Is there anywhere in the document that you assessed the other factors, other confounding factors that impact the DO regime, such as sediment, oxygen demand, river flow, low DO coming in from swamp areas? Did you assess that anywhere in this analysis? **A.** No.

AR D.4.i.4 at 438 ln 11-21.

> **Q.** What about the factors that are controllable in tidal rivers; did you assess whether or not CDOM, turbidity or any of the other actors that are significantly influencing the transparency level in the tidal rivers, is there any assessment of that anywhere in that document? … **A.** No.

Id. at 438 ln 11 – 439 ln 10.

Order, Petitioner's provided either citations to specific pages within the testimony or provided full quotations from DES officials that support the Petitioners' assertion that the criteria are flawed and the State's narrative standard requires a showing of causation.[3] *See, e.g.*, Motion for Reconsideration of Order Granting Amicus Brief, at 4 (citing AR D.4.i.1 at 80 ln 14-23), at 5-6 (citing AR D.4.i.4 at 436 ln 8 – 438 ln 9), at 6-7 (citing AR D.4.i.3 at 227 ln 3-12; 230 ln 4-11, 16-19, and 232 ln 22 – 233 ln 17); Reply, at 3-4 (citing AR D.4.i.1 at 19 ln 4-13); at 4-5 (citing numerous pages of deposition testimony); at 11-12 (citing AR D.4.i.1 at 80 ln 14-23; AR D.4.i.4 at 332 ln 22 – 333 ln 8); Petitioner's Response to Amicus Briefs, at 9-10 (citing AR D.4.i.4. at 369 ln 16 – 370 ln 8; 371 ln 16- 372 ln 10); at 6-7 (citing Pet. Exh. 6A); at 7 (citing AR D.4.i.3 at 227 ln 3-12; 230 ln 4-11, 16-19; 232 ln 22- 233 ln 17; 235 ln 18-236 ln 17). A detailed level of specificity was provided by Petitioners that did not require the Board to "comb through" records to find these statements, as was claimed. Thus, the Board's assertion that the Petitioner failed to present specific State testimony admitting that it had no information showing TN caused an impairment in the system, is clear error.

Finally, the Board erroneously found that the Petitioners mischaracterized a letter from NHDES Commissioner Burack dated October 19, 2012 (A.R. H.43) ("Burack letter"). *See* Dec. 2nd Order, at 47-48, 70. The Board cites only to the Burack Letter *conclusion* for the proposition that NHDES supports the 2009 Criteria Report. Dec. 2nd Order, at 48. However, the analysis

[3] Attached for the Boards convenience are two of Petitioner's briefs and Exhibit 15 cited to in the Petition that included detailed quotations from the deposition testimony and citations to the pertinent administrative record documents. *See* Attachment 1 (Petition for Review, Exhibit 15 (AR D.3)); Attachment 2 (Petitioner's Reply to EPA's Memorandum in Opposition to the Petition for Review (Mar. 1, 2013) (Dkt #40)); and Attachment 3 (Petitioners' Response to Amicus Briefs of New Hampshire Department of Environmental Services and Conservation Law Foundation, Town of Newington, and New Hampshire Audubon (Mar. 8, 2013) (Dkt #44)). Additionally, Petitioners would direct the Board to the following briefs which also included detail quotations from the deposition testimony and citations to the pertinent administrative record. *See also* Petitioner's Motion for Reconsideration of the Order Granting New Hampshire Department of Environmental Services' Motion to File a Non-Party Amicus Brief (Feb. 09, 2013) (Dkt # 26); Petitioners' Motion to Supplement the Administrative Record and to Depose the Experts Relied on by EPA (Mar. 7, 2013) (Dkt # 43).

contained within the Burack Letter and cited specifically by Petitioners made the critical admission that TN controls was not demonstrated to be "necessary" for the Lamprey River:

> The point of the graphs was to attempt to show that chlorophyll-a was not well correlated with water clarity and therefore, other factors such as turbidity and color dissolved organic matter (CDOM) must be controlling light attenuation. During the deposition, DES staff agreed that the graphs supported those conclusions.

AR H.43 at 5; *see also* Petition at 38, 42, 53, 58. Moreover, two DES witnesses, Philip Trowbridge and Paul Currier, admitted under oath that there is no analysis showing that TN control is significant to eelgrass restoration in this system. *See* AR D.4.i.4 at 423 ln 1-13; AR D.4.i.1 at 137 ln 12 – 138 ln 1 (cited in the various briefs).

Accordingly, the Board clearly erred by finding that Petitioners did not sufficiently cite to the administrative record to support their specific arguments on SAB omissions and DES admissions. The Petitioners provided specific citations throughout their briefing to direct the Board's attention to the appropriate documentation in the administrative record confirming EPA's responses were deficient. As in *Cinderella Career and Finishing School* v. *FTC*, the Board either (1) failed to understand the requested information had been presented or (2) simply ignored unrefuted information that confirmed EPA's position was in error. 25 F.2d 583, 588-589 (D.C. Cir. 1970). The Petitioners provided specific citations through their briefing to direct the Board's attention to the appropriate documentation in the administrative record confirming EPA's positions were unsupported. Therefore, the Board's clearly erroneous decision to the contrary should be withdrawn.

c. The Standard of Review Applied By the Board Deprived Petitioners of Due Process and Was Inconsistent with Controlling Board Decisions

The Board noted that in an appeal, the party must state with particularity why the Region's response to a comment was not sufficient and how the information demonstrates the permit action is in error. Dec. 2nd Order, at 7. Simply repeating the original the comment is insufficient to support an appeal. *Id.* In this case, the Board agreed that Petitioners provided sufficient particularity as to its issues on appeal. However, rather than evaluate whether the particular issues were properly refuted by the Region (based on the specific evidence in the record), the Board simply repeated the Regions general responses denying the specific issue on appeal and nowhere explained how the specific evidence on the record actually supports the Region's position. This is clear error and renders the public comment process a paper exercise. Where well-documented issues are presented to refute the Region's position, the Board must identify the non-conclusory record information that shows the Region's rebuttal statement actually addresses the issue raised and is appropriately supported, not simply repeat a conclusory denial when a proper objection is raised.

This new approach, for all practical purposes, improperly reduces the basis for overturning a permit action to one simple question - did the Region claim that it responded to the issue. If so, the Board presumes that the Region's response is correct and does not look for independent verification of objective support in the record on the *specific* issues raised. This is an improper scope of review. Where an issue is validly and sufficiently presented, with particularity, at a minimum, the Board must assess the factual validity of the Region's claims that are contrary to the objective, scientific and factual evidence placed in the record by the Petitioners. Citing to State, CLF, the 2010 peer review or other third party "support" of the Region's overall position does not, in any way, confirm that the *specific* factual objection raised

by the Coalition is, or is not, verified by the record, or show that the Region has sufficient evidence to the contrary to overcome the specific objection raised. Dec. 2nd Order, at 29-36; s*ee Chem. Mfrs. Ass'n v. Envtl. Prot. Agency*, 28 F.3d 1259, 1265 (D.C. Cir. 1994) (stating, when challenged, EPA must provide a "full analytical defense of its model" and show "there is a rational relationship between the model and the known behavior of the …pollutant to which it is applied."); *Columbia Falls Aluminum .v Envtl. Prot. Agency,* 139 F. 3d 914, 923 (D.C. Cir 1998) (EPA "retains the duty to examine key assumptions as part of its affirmative burden of promulgating a non-arbitrary, non-capricious rule."); *Upper Blackstone Water Pollution Abatement Dist. v. Envtl. Prot. Agency*, 690 F.3d 9, 26-27 (1st Cir. 2012) (affirming EPA's decision because the model assumptions "'corresponds to what is actually occurring in the Providence/Seekonk River system.'").[4]

The following are four examples of the Board's error in this regard involving four basic factual issues repeatedly raised by the Coalition that undermine the scientific validity of the 0.3 m/l TN numeric criteria. The Board admits these were the bases for declaring the waters of the estuary "nutrient impaired" under the Act. Dec. 2nd Order, at 23, 28. The Board found each of these technical issues was properly raised for appeal. Dec. 2nd Order, at 36-37.[5] Confirmation of each of these critical factual issues required no special expertise. The data and analysis either do

[4] Moreover, where, because of EPA's conclusory statements, the Petitioner is forced to file repeated FOIA requests to have EPA identify the records supporting its position and EPA repeatedly failed to identify those records supporting the Region's claims, reliance on the Region's unsupported averments is patently improper. *See Coastal States Gas Corp. v. Dep't of Energy*, 617 F.2d 854, 867 (D.C. Cir. 1980) (finding FOIA exemption 5 under 5 U.S.C. § 522(B)(5) may only apply "to the 'opinion' or 'recommendatory' portion of [a document], not to factual information which is contained in the document."); *John Doe Agency v. John Doe Corp.*, 493 U.S. 146, 152 (1989) ("But these limited [FOIA] exemptions do not obscure the basic policy that disclosure, not secrecy, is the dominant objective of the Act. Accordingly, these exemptions must be narrowly construed.") (internal quotations omitted).

[5] Contrary to the Board's approach, the mere fact that an issue is classified as technical or scientific does not mean that the Board should simply agree with the Region's position. The Board is required to look at the "whole record" and determine that the Region's position is, in fact, properly documented. If the Coalition identified that the Region never undertook a necessary analysis (like confounding factors assessments needed to document the validity of any stressor-response based numeric nutrient criteria) the Region must identify where the analysis took place. The Board is not supposed to simply take the Region's word for it, as occurred in this matter. *See* Dec. 2nd Order, at 5-6.

or do not exist. The Coalition noted that the following points (as well as all other major scientific issues documented in the briefing) were not refuted by the Region's responses[6] and were supported by extensive information and data in the record (including repeated independent expert evaluations *as well as the sworn testimony of Philip Trowbridge, the author of the 2009 Criteria document, and Dr. Fredrick Short, the lead eelgrass researcher for Great Bay Estuary (i.e., those opposed to the Petitioner's filing)*):[7]

1. *Phytoplankton growth did not change despite changing TN levels in the system over time. See Petition, at 57-60. Consequently, (1) the conceptual model chosen by EPA is not rationally related to the data for this system, (2) TN-induced impairment of transparency cannot be responsible for the eelgrass decline anywhere in the system and (3) achieving a lower TN value will not produce any material change in system transparency (the basic objective of the 2009 Numeric Criteria). Note: The 2009 Criteria Document, the 2010 peer review and the report by Dr. Valiela for CLF did not undertake an evaluation of this issue or demonstrate that changing TN levels caused changes in algal growth in this system; all of these "expert analyses simply <u>presumed</u> that condition occurred. The Board's duty was to determine that there was sufficient evidence in the record to refute this issue raised by the Petitioners. It failed to do so.*

2. *Reducing TN in the tidal river tributaries cannot possibly results in any significant improvement in transparency or allow for eelgrass restoration the existing because color dissolved organic matter and turbidity (both natural conditions) control transparency levels in these waters. See Petition, at 57-62. Therefore, (1) no "violation" of the narrative criteria exists in these waters and (2) TN control is not and cannot be considered "necessary" to achieve applicable standards. Note: The 2009 Criteria Document, 2010 peer review and report by Dr. Valiela for CLF did not undertake any evaluation of this issue or demonstrate that changing TN levels in the tidal rivers caused changes in algal growth in this system, all parties simply <u>presumed</u> that condition occurred. The Board's duty was to determine that there was sufficient evidence in the record to refute this issue raised by the Petitioners. It failed to do so.*

3. *Great Bay, in general, is not a transparency limited system and the cause of eelgrass population declines in that system since 2005 (the time up to which the system was not considered eelgrass impaired) is unknown (though suspected to be related to extreme weather events occurring 2005-2008). See Petition, at 62-67, 72-74. Therefore,*

[6] Moreover, Petitioners submitted a series of FOIA requests asking the Agency for the specific record information supporting the Agency's conclusions. *See* AR I. 1-18. The Agency did not produce any documents which provided the support for the Agency's position. *See* S. Exh. 25 (discussing the documents released by the Agency in the above referenced FOIA requests).

[7] EPA's conclusory statements are not rational in light of the information in the record. *See, e.g.,* AR C.2; D.1.i.3; D.1.i.4; H.2; H.4; H.43; K.11; K.28; *see also* S. Exh. 11, 17, 19.

controlling TN to improve transparency in Great Bay (assuming that would actually occur) cannot be considered "necessary" to protect eelgrass resources. Note: The 2009 Criteria Document, 2010 peer review and report by Dr. Valiela for CLF did not evaluate whether or not eelgrass in Great Bay received sufficient light under lower tide conditions as later confirmed by Dr. Short. The Board's duty was to determine that there was sufficient evidence in the record to refute this issue raised by the Petitioners. It failed to do so.

4. *No one evaluated the impact of the 2006 extreme weather events on eelgrass in the system despite the fact that the major eelgrass declines occurred immediately after this event. See Petition at 72-74. No one has completed any study investigating why eelgrass have declined over time in this system. Given this fact, there is no objective scientific basis to assert that TN (1) caused the eelgrass decline or (2) that reduction is "necessary" to protect and restore eelgrass resources in Great Bay or the tidal rivers. Note: The 2009 Criteria Document, 2010 peer review and report by Dr. Valiela for CLF did not evaluate what actually caused eelgrass declines in the system, they just indicated that eelgrass loss in other systems was attributed to excessive nutrients and presumed the same conditions here. The Board's duty was to determine that there was sufficient evidence in the record to refute this issue raised by the Petitioners. It failed to do so.*

In response to these highly specific and well documented factual conditions showing that the entire TN/transparency control approach and conceptual model underlying the 2009 Criteria document was unsupported by the data for *this* estuary system, the Board repeatedly references generalized statements that DES, EPA, NOAA and CLF support TN control for estuaries and the 2009 Criteria, in particular. *See, e.g.*, Dec. 2nd Order, at 10-11 (citing AR L.3); at 33-34 (citing AR H.13); at 36 (citing AR M.12). These statements of generalized support, or acknowledgment of general conclusions reached for other estuaries, in no way "disprove" the validity or accuracy of the specific factual objections raised by the Coalition that were based on the specific data for this estuary, including repeated studies of several University of New Hampshire researchers from the Jackson Laboratory located on Great Bay. It is axiomatic, that such conclusory statements and evidence simply does not provide a factual, record basis to discard the issues raised by Petitioners.

Many of the generalized studies cited by the Board were completed years before the specific studies, DES admissions under oath, and PREP findings regarding this estuary were made in the documents referenced by the Coalition as objective support for their positions. *See, e.g.*, Dec. 2nd Order, at 11 (AR L.30 - 1999 NOAA Report); at 10-11(AR L.3- 2007 NOAA Report); 2010 Peer Review (AR M.1, M.20). The Board has not and cannot refer to any Great Bay specific data or analysis showing that any of the four critical statements above are not well-documented as true. Thus, the Board's decision is flawed from a legal and factual basis as it is not based on confirmatory, relevant evidence in the administrative record. Simply adopting and repeating the Region's conclusory statements to the contrary does not meet the Board's standard of review on appeal. The Board must cite to evidence that forms a sufficient basis to reject the highly specific factual/scientific objections and technical flaws identified by the Coalition in its original comments and raised with particularity on this appeal.[8]

[8] In particular, EPA had numerous, irrelevant responses to the information and analyses presented in comments by the Coalition. Chief among the unresponsive and unsupported assertions accepted by the Board as "dispute among the experts" involved DES Official's under oath response that the data from the tidal rivers confirmed TN control could not possibly have a material effect on transparency in, for example, the Lamprey or Squamscott Rivers (contrary to that predicted in the 2009 Criteria Report). EPA's response (cited by the Board in full (Dec. 2nd Order, at 37-38)) confirms that it did not say the observation was not true, it simply claimed that EPA used "medians" and "long term information" in its evaluation. This statement does not demonstrate that such information shows TN reduction will be effective. In fact the only objective report cited by EPA (Morrison 2008) confirmed that tidal river transparency (which is quite poor) was controlled by CDOM, not algal growth induced by TN. AR K.11, at 51. It is understood that the Board may be easily confused as non-experts, but, at a minimum, the Agency's response had to claim the other analyses verified TN induced algal changes would be of a high enough magnitude to greatly improve transparency. The statement plainly does not exist anywhere in the record as acknowledged by Paul Currier of DES. *Infra*, at 22. If the Board were uncertain about what this all means, it should have accepted the plain language of Mr. Trowbridge who, under deposition admitted controlling TN in the tidal rivers was a meaningless exercise:

> **Q.** … So controlling nitrogen to control chlorophyll in this system will not allow this water body to even come close to attaining the transparency level that is contained in the 2009 criteria; right? **A.** Based on this analysis, no. **Q.** All right. This data had been submitted to you and to EPA. Is there any basis that you know for claiming that the analysis presented in this graph is incorrect? *** **A.** No.

AR D.4.i.4 at 423 ln 1-13.

> **Q.** Data or analyses that show you control nitrogen, you're going to fix that transparency problem, transparency issue in the Lamprey River? **A.** The answer is I don't believe so. It's the same issue as the Squamscott.

d. The Board Erred in its Understanding of the *City of Dover v. EPA* and in Its Determination that the Alaska Rule Does Not Apply to Permitting Decisions

The Board's decision was in error regarding the status and finding of the *City of Dover v. U.S. EPA*, NO. 12-CV-01994-JDB (D.D.C. Dec. 13, 2012). Contrary to the Board's conclusion (Dec. 2nd Order, at 17 n.9), the matter is ongoing and will address the issue of whether EPA improperly approved the impaired waters listings for Great Bay estuary in reliance on the 2009 Numeric Nutrient Criteria as the "applicable standard" to demonstrate compliance with the narrative criteria. *See City of Dover v. U.S. EPA*, No. 12-CV-01994-JDB (D.D.C. Nov. 15, 2013) (granting Plaintiff's motion to alter or amend the July 30, 2013 judgment and granting Plaintiff's motion for leave to amend the complaint). Contrary to the Board's understanding, the Court did *not* dismiss the case but agreed that Petitioners have a valid cause of action against EPA for an illegal application of an un-adopted rule in finding the Great Bay Estuary nutrient impaired. *City of Dover v. U.S. EPA*, 2013 U.S. Dist. LEXIS 106331, at *26-27 (D.D.C. July 30, 2013) ("The Cities' real argument, then, is that EPA and DES have improperly given the [2009 Criteria document] the force of law in subsequent decisions. Perhaps EPA and DES did so, perhaps not. But the challenge must be raised in the context of those subsequent decisions because EPA did not have a nondiscretionary duty to review the 2009 Document."). The Court also recognized that there were other appeals (the EAB action) that have also raised this issue. *Id.* at *23 n.3. Subsequently, the District court reversed its dismissal and allowed an amended

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AR D.4.i.4 at 432 ln 20 -433 ln1. As the author of the 2009 Criteria Document, he certainly had no reason to lie about the need for and efficacy of TN control in these waters. Obviously, if TN control will not produce a material change in transparency in this system, TN control is not demonstrated to be "necessary" as required by § 122.44(d). Alternatively, the Board could have accepted the expert affidavit of Dr. Steven Chapra who plainly described what fundamental errors were made in believing TN controlled transparency or low DO for this system. *See* S. Exh. 19. As an internationally renowned expert, Dr. Chapra had no "ax to grind" nor did the two University of New Hampshire Professors (Jones and Langan – PREP TAC Committee members) who espoused the same position in the January 11, 2013 letter. *See* S. Exh. 11. Allowing consideration of none of this information and just abdicating review on any technical issue was not, however, consistent with applicable jurisprudence. *Supra*, at 9-10.

complaint regarding the use of unadopted criteria to render impairment listing determinations. *City of Dover v. U.S. EPA*, No. 12-CV-01994-JDB, Memorandum Opinion and Order (D.D.C. Nov. 15, 2013). Therefore, it was clear error for the Board to have failed to address this issue that was raised in the Petition, believing in part, that the District Court in the Dover matter reached the same conclusion.

Consequently, the Board was also plainly in error that the provisions (and required federal approvals) specified in 40 C.F.R § 131.21 don't apply in permit matters. Dec. 2nd Order, at 60-62. The Board initially gets it right. For the permit analyses to trigger the need for a "reasonable potential" evaluation, EPA must determine if there is "an exceedance of the narrative … criteria as set forth in the state water quality standards." Dec. 2nd Order, at 20. However, the Board subsequently errs in finding "[w]here a state has promulgated only narrative water quality standards, *the first task of the permit writer is to determine an appropriate instream numeric water quality target*." Dec. 2nd Order, at 27 (emphasis added).

First, the Board itself noted that 40 C.F.R. § 122.44(d) is a permitting rule established under Section 402 authority. It does not (and cannot) provide for amendment or a change in application of the actually adopted narrative standards approved under Section 303(c) of the Act. Dec. 2nd Order, at 19. The Board specifically describes what the adopted state narrative standard addresses on pages 21-22 of the Order (*i.e.*, there is no adopted TN concentration that determines if a violation exists). The Board is well aware that NPDES rules require that permits must be based on existing rules. 40 C.F.R. § 122.43(b). Permitting rules (40 C.F.R. § 122.44(d) *expressly* say effluent limits are based on the "applicable WQS" (i.e., the standard "established under section 303 of the CWA."). Therefore, for this permit to be valid, the Board must first determine that the *permit* is based on a confirmed exceedance of the adopted standard (*i.e.*, the pollutant of

concern is causing a narrative criteria violation). The Board has acknowledged that the 2009 Numeric Nutrient Criteria was *never adopted* (Dec. 2nd Order, at 22-23). Nonetheless, the Board also acknowledged that DES used this as the basis for declaring the estuary waters nutrient impaired. *Id.* at 23. The Board's ruling relied on this conclusion to reach the determination that nitrogen controls were required under § 122.44(d). *Id.* at 62 n.28. That is *precisely* the factual and legal scenario Petitioners asserted was proscribed by the Act and the applicable rules under 40 C.F.R §§ 130.6 and 131.21. Petition, at 46, 47-48; Reply, at 22-24. The 2009 criteria *cannot*, as a matter of law, be used to declare Great Bay nitrogen impaired. *See* AR D.4.i.1 at 80 ln 14-23. The fact that DES committed a clear legal violation does not give EPA "carte blanche" to rely on that conclusion. Dec. 2nd Order, at 62 n. 28.

Having made these findings it was clear error for the Board to (1) in any way rely on the impairment findings or (2) allow EPA to use the numeric criteria to determine that a "violation" of the narrative standard was occurring triggering the need for an effluent limitation under 40 C.F.R. § 122.44(d).[9] By definition (*i.e.*, "applicable WQS") EPA and DES cannot apply an unadopted and unapproved criteria to declare waters nutrient impaired or as the "required" interpretation of the properly adopted narrative criteria at the time of permitting. *See* Dec. 2nd Order, at 60 ("Unlike the [2009] Great Bay Nutrient Report (which expressly states NHDES' intent to use the its proposed nutrient thresholds to interpret state narrative water quality critieria for purposes of impairment listings) …").

Second, the case resulting in the Alaska Rule, which triggered modification of 40 C.F.R. § 131.21, was brought because the state was using an adopted, but unapproved WQS *for*

[9] The Board's decision repeatedly confuses EPA's use of the 2009 Criteria as the basis for calculating an effluent limit versus using the criteria to find a violation of the narrative standard, which EPA readily admitted it did (EPA Response, at 45-46). While 40 C.F.R. § 122.44 provides leeway in using various information for *effluent limitations* purposes, it provide no such authority to simply substitute an unadopted numeric criteria as the basis for determining whether, in the first instance, a narrative criteria *violation/exceedance* exists.

permitting. The court said that was illegal and the existing WQS rule allowing this to occur was inconsistent with the statute. *Alaska Clean Water Act Alliance v. Clark,* No. C96-1762R (W.D. Wash. July 8, 1997). 40 C.F.R. § 122,44(d) existed in its present form at the time and EPA did not claim it allowed them to use the adopted standard, let alone an unadopted standard. EPA agreed and amended the 40 C.F.R. § 131.21 rules to clarify this is not allowed. *See* 65 Fed. Reg. 24,641 (Apr. 27, 2000). This was done *expressly for the purpose of affecting permit decisions.* Therefore, contrary to the Board's determination, this later amended rule must be read in *pari materia* with 40 C.F.R. § 122.44(d) (*i.e.,* must presume both rule requirements are met, not that one is irrelevant). Thus, the Board's theory that EPA is allowed to use unadopted rules to find waters "in violation" and therefore triggers the need for a permit limit (because of how 40 C.F.R. § 122.44(d) is structured) but the same is not in a TMDL context where the same "applicable standard' must be applied, is plainly at odds with the requirements of Sections 301(b)(1)(C), 303(c)-(d), 402 and the implementing regulations which all require agency decisions to be based on the adopted, approved standards. This plainly incorrect reading of the applicable rules and statutory framework requires that the decision be withdrawn and decided in the favor of Petitioners.

e. The Board Ignored The Coalition's Primary Argument of the Appeal- a Cause and Effect Demonstration Must Occur under the State's adopted standards, to Determine if a Violation of the State Narrative Criteria has Occurred

As the Board correctly notes "New Hampshire has not developed final statewide or site specific numeric water quality standards for nitrogen." Dec. 2nd Order, at 21. The adopted narrative standard states nitrogen "that would impair any existing or designated use, unless naturally occurring" is proscribed. Also, where nitrogen "encourages cultural eutrophication" it is limited to the extent necessary "to ensure attainment and maintenance of water quality

standards." *Id.* at 22 (citing NH. Code Admin. R. Ann. DES, 1703.14(c), (d) (2013)). However, the Board goes on to state that "the first task of the permit writer is to determine an appropriate instream numeric water quality target." Dec. 2nd Order, at 27. That statement plainly reflects an incorrect analysis of the statutory structure.

Pursuant to the State's water quality standard and 40 C.F.R. § 122.44(d)(i)(1), the initial step is to determine whether the instream concentration of nitrogen caused a violation of the narrative criteria (*i.e.,* would or did cause cultural eutrophication to the degree it would impair uses) and only reduce nitrogen to the degree "necessary" to ensure the level of "cultural eutrophication" is not impairing uses. Thus, the state narrative quality standard plainly has written into it a multiple cause and effect determination. Moreover, DES officials stated under oath that such a demonstration (*i.e.*, TN caused the problem) was necessary before developing an instream numeric water quality target. AR D.4.i.4 at 326 ln 4-8; AR D.4.i.1 at 133 ln 22 -134 ln 11, at 19 ln 4-13. DES officials also admitted that the 2009 Numeric Nutrient Criteria document could not be considered to be a basis for demonstrating a narrative criteria violation as it does not demonstrate a cause-and-effect relationship between nutrients and cultural eutrophication. AR D.4.i.1 at 80 ln 14-23; at 136 ln 6-12; AR D.4.i.3 at 234 ln 11-15. DES officials also admitted that no study has shown TN caused eelgrass loss, increased macroalgae growth, low dissolved oxygen, or reduced transparency. AR D.2.i.1-2, AR D.1.i.3-4, AR D.4.i.3 at 124 ln 22-125 ln 1. Additionally, if low transparency in the system is caused by *natural conditions* (as is confirmed in the 2008 Morrison Study and asserted by Petitioners), then under State law, there is no narrative criteria violation. Env-Wq 1703.14(b); *see also* AR D.4.i.4 at 431 ln 1-3; AR D.4.i.1 at 87 ln 7-12. Because a cause and effect demonstration is necessary to show TN actually caused the impairment via excessive "cultural eutrophication" before an instream numeric water quality

target is developed to create an appropriate limit, and no such demonstration has been done to date, it would be improper to claim TN has caused a narrative criteria violation.

However, the Board did not address this critical first step to the analysis: whether an instream concentration of nitrogen caused a violation of the narrative criteria pursuant to the State's water quality standard, as the adopted standard requires.[10] *See* Dec. 2nd Order, at 26 (stating a three step analysis that the Region must perform to translate a narrative standard into a numeric effluent limitation). Instead, the Board simply relied on EPA's decision to apply the 2009 Numeric Nutrient Criteria document as the basis for presuming that TN has caused an impairment. This is contrary to the State's admissions that it does not provide such a scientific demonstration. The Board's reliance on EPA's approach constitutes clear error, since it does not apply the water quality standard that was actually *adopted* by the State, as required by the Act, the water quality standards rules and NPDES rules.

f. The Board's Decision Regarding the Validity of the Stressor-Response Analysis and Consistency with the Relevant SAB and EPA Guidance is Clear Error

The Petitioners argued that EPA's use of the 2009 Nutrient Criteria to declare waters impaired for nitrogen and establish effluent limitations was not defensible because the "stressor-response" methods used to derive the 2009 Criteria were fundamentally flawed based on (1) the finding of the April 10, 2010 SAB Report and (2) EPA's November 2010 Stressor-Response Guidance document. Petition, at 89-91; *see also* Petition, at 91-95. The comments specifically highlighted three fundamental errors (1) the analysis failed to assess "confounding factors" that could explain the same relationships presented as nitrogen impacts in the 2009 Document (Petition, at 90); (2) the analysis combined data from multiple habitats and attributed all changes

[10] It appears the Board misunderstood the Coalition's primary argument pertaining to when a "cause and effect" demonstration needs to be made. The Board appears to believe that the Coalition was arguing that a cause and effect demonstration was necessary for a reasonable potential analysis. *See* Dec. 2nd Order, at 54 n.23. Instead, the cause and effect demonstration occurs before a reasonable potential analysis is even deemed necessary.

in water quality to TN effects (Petition, at 93); and (3) the alleged "weight of evidence" analysis improperly excluded the evidence that was contrary to the intended result of the 2009 Criteria Report (Petition, at 89-91). All of these deficiencies were documented in detail in the Petition as well as in the Record and identified in the Briefs. *See, e.g.*, AR C.2; AR D.3 at 9-10; AR H.14 at 2-3, 9-10. While the Board itself noted that EPA's Guidance stated that "the stressor –response analysis should include an evaluation of the 'accuracy of the estimated relationships*** with regard to the possible influence of known confounding variables'" (Dec. 2nd Order, at 44), the Board did not cite to (and cannot find) such critical analyses in the record. As pointed out in Petitioners pleadings, this "confounding factors" assessment is required because, as noted by the SAB, without such analyses one cannot know the reliability of the stressor-response prediction (*i.e.*, does TN really control transparency). Petition, at 90-92 (quoting the SAB Report: "In order to be scientifically defensible, empirical methods must take into consideration the influence of other variables …. The statistical methods in the Guidance require careful consideration of confounding variables before being used as predictive tools. … Without such information, nutrient criteria developed using bivariate methods may be highly inaccurate."); A.R. C.2 at 8, 17. In finding EPA's reliance on the state's stressor-response defensible, the Board did not find that the required analyses were conducted to ensure the criteria are defensible in direct contradiction to the Board's prior conclusion that it must see if the record had "adequate scientific support for the methodology and conclusions." Dec. 2nd Order, at 29. Having identified that the key stressor-response assessment was necessary to find the 2009 Criteria reliable, the Board could not simply ignore this requirement.

The Board also clearly erred when it concluded, based on no identified documents in the record, that the mere fact that the 2009 Criteria Document claimed it undertook a "weight of

evidence" assessment, that it should be presumed scientifically defensible under EPA's published guidance and the SAB Report. Dec. 2nd Order, at 44, 45. Based on the SAB Report and EPA's 2010 Stressor-Response Guidance, it is not reasonable to conclude that simply calling the assessment "weight of evidence" means it is defensible. The SAB Report says no such thing. *Contra* Dec. 2nd Order, at 43-44. More importantly, EPA did not and cannot refute that the 2009 Numeric Criteria Report and the subsequent 2010 peer review *excluded* consideration of the various Great Bay Estuary analyses and data as well as the relevant SAB finding. In fact, EPA admitted that it *directed* the 2010 peer reviewers to *not consider the SAB information*:

> The Coalition, or its representatives, developed several sets of additional comments on the 2009 Criteria document after the March 20, 2009 close of the public comment period (referred to as 'the subsequent Coalition comments'). On May 12, 2010, the Coalition transmitted comments to NHDES and EPA, entitled "Assessment of Appropriate Peer Review Charge Questions Numeric Nutrient Criteria for the Great Bay Estuary, New Hampshire." On June 7, 2010, the Coalition submitted their May 12, 2010, comments as well as a final report from EPA's Scientific Advisory Board directly to Drs. Boynton and Howarth. [footnote omitted]. *EPA shortly thereafter decided that these and any further comments would not be allowed within the authorized scope of Drs. Boynton and Howarth's peer review.*

S. Exh. 26, at 2 (emphasis added). Phil Trowbridge and Paul Currier of DES also admitted the contrary evidence was excluded from both assessments:

> **Q.** … 2009 criteria document that you developed, that's a – you said you used a weight of evidence analysis to come up with the criteria in that report; right? **A.** Yes. **Q.** Did you include in that report the evidence that indicated that transparency was not the cause of eelgrass loss in the system that you had developed in any of your earlier analyses? **A.** What are you referring to for an earlier analysis? **Q.** That transparency, or analysis of transparency had not changed over time; was that included anywhere in that report? **A.** No. **Q.** What about all the statements that Great Bay is not a transparency-controlled system, from EPA and Dr. Short, and those are the ones you and I walked through in your first round of the deposition. Did you include the statements that Great Bay was not transparency-controlled? **A.** I'm not sure; I don't believe so. **Q.** Okay. What about the – did you include the statements that the cause of eelgrass losses and changes in the system were unknown, statements that were contained in the various 303d listing documents? **A.** Uhm, I have to look through. I'm not sure.

I'm not seeing it here. **Q.** Did you include any of Morrison's conclusions that the major factors controlling transparency in the system were, in fact, turbidity and color-dissolved organic matter, and not chlorophyll? **A.** I believe we included equations from the Morrison study. **Q.** Did you highlight the Morrison study concluded that the transparency level of Great Bay was acceptable, and that you needed to look at something else as the cause of eelgrass demise? **A.** I'm not sure if we have that statement in here. **Q.** It's pretty important statement, isn't it? It made your report. Did you – well, did you include any discussion about how the primary graphs that you were using to develop the transparency and nitrogen relationships were merely correlations and did not demonstrate causation? **A.** I don't believe so.

AR D.4.i.4 at 436 ln 8 -438 ln 9.

Q. … So you plotted the water quality -- water clarity data over time and then you showed some of the same regressions. And you showed the preliminary results, the Ru Morrison study, that chlorophyll-a is only eight percent of the transparency affecting the system. Now let's go to the conclusions. Can you read the first conclusion? **A.** Eelgrass biomass declining in Great Bay but no apparent decline in water clarity. *** **Q.** You've got water on the Piscataqua River which showed it didn't change over time. The only available data – do you have any other available data other than these data showing whether water quality changed over this 15-year period in the Piscataqua River and Great Bay where most of your eelgrass resources were? **A.** No. *** **Q.** So the only available data you have shows water clarity didn't change in the Piscataqua River and in Great Bay, right? **A.** Right. *** **Q.** So let me see if I understand this. You had specific data on Great Bay that said experts are telling you Great Bay's not a transparency issue, you have specific – the only data set you have for the entire system saying transparency didn't even change over time, you have other information confirming that the nitrogen loads did not even cause a significant change in phytoplankton growth, and you ignored all of that information and simply claimed you had a weight of evidence of something else unrelated to this system that said you needed to have these stringent numbers in place? Is that what you're telling me? I mean, I just need to understand because you've got specific data and analysis and you did it repeatedly – **A.** Hmm. **Q.** -- and it doesn't show up in that statement. **A.** Uh-huh.

AR D.4.i.3 at 227 ln 3-12; 230 ln 4-11 16-19; and 232 ln 22 – 233 ln 17.

Q. Back to my last question, though. Have you ever seen an analysis that shows regulating nitrogen for the tidal rivers, and I'll say upper Piscataqua, Squamscott and Lamprey will, in fact, result in a significant improvement in the transparency such that eelgrass can be restored? Has anybody ever showed you a site-specific analysis of the data for those sections that show that? **A.** No. **Q.** Okay. I hadn't seen it either. That's why I thought you might have seen it. **A.** I'm fairly sure it doesn't exist.

AR D.4.i.1 at 137 ln 12 – 138 ln 1.

Thus, it is clearly improper for the Board to conclude that the 2010 peer reviewers confirmed the 2009 Criteria was "scientifically defensible" and a sufficient "weight of evidence" assessment was conducted when it was known that (1) documents contrary to the 2009 Criteria Report were *excluded* from that Report and (2) the analysis of the SAB stressor-response issues expressly *did not occur* as part of that peer review. The Board is required to determine the reasonableness and validity of EPA's decision-making "in light of the entire record". Plainly, and without dispute, this did not occur as critical records contrary to EPA's position were purposefully excluded from the 2009 report and 2010 peer review. As noted by Petitioners, this is a *per se* violation of APA procedural requirements applicable to agency decision making. *NRDC v. U.S. Forest Serv.*, 421 F.3d 797, 816 (9th Cir. 2005). As the Board failed to address this issue anywhere in its decision, clear error has occurred in rendering this decision.

III. Conclusion

For the reasons discussed herein, we respectfully ask the Board grant our Motion for Reconsideration of the Board's December 2, 2013, Order.

Respectfully submitted,

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CERTIFICATION OF SERVICE

I hereby certify the copies of the foregoing Petitioners' Motion for Reconsideration, in connection with NPDES Appeal No. 12-5, were sent to the following persons in the manner indicated:

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