IN RE TOWN OF CONCORD DEPARTMENT OF PUBLIC WORKS

NPDES Appeal No. 13-08

ORDER REMANDING IN PART AND DENYING REVIEW IN PART

Decided August 28, 2014

Syllabus

The Town of Concord, Massachusetts ("Concord"), petitions the Environmental Appeals Board ("Board") to review a National Pollutant Discharge Elimination System ("NPDES") permit that authorizes discharges from the Concord Wastewater Treatment Plant to the Concord River. The United States Environmental Protection Agency, Region 1 ("Region"), issued the permit on August 1, 2013, pursuant to Clean Water Act section 402, 33 U.S.C. § 1342. Concord challenges, on various procedural and substantive grounds, five of the permit's components, including effluent limitations for aluminum, pH, and wastewater flow, a quarterly monitoring requirement for di(2-ethylhexyl) phthalate ("DEHP"), and sewage collection system mapping, operations/maintenance planning, and reporting requirements.

Held: The Board remands the aluminum and pH limits to the Region for further explanation and denies review of all other issues.

(1) *Aluminum.* The Region failed to adequately explain the basis for changes to the effluent limit for aluminum. In Concord's draft permit, the Region proposed an effluent limit for aluminum based on its analysis of the "reasonable potential" for Concord's discharge of aluminum to cause or contribute to a violation of Massachusetts water quality standards. In determining "reasonable potential," the Region considered several factors, including the concentration of aluminum in Concord's discharge and the available dilution in the Concord River. The Region based the available dilution on the use of the "7Q10 flow value" (i.e., the lowest seven-day average flow occurring once every ten years), as required by Massachusetts' water quality standards. After the Region received comments asking for a clearer explanation of the 7Q10 figure, the Region recalculated the 7Q10 using new data and information. The various adjustments caused the 7Q10 value to decrease significantly, which resulted in the Region incorporating a more stringent aluminum effluent limit in Concord's final permit. The rules governing NPDES permitting require permit issuers to specify, in the response to comments

document, the reasons for changes in draft permit conditions, but the Region failed to do that here. The Board remands the aluminum limit for further explanation as to the reasons for the changes in the 7Q10 calculation.

(2) *pH*. The Region also failed to explain the reasons for changes in the effluent limit for pH. In Concord's draft permit, the Region proposed to continue Concord's long-standing pH effluent limitation of 6.0 to 8.3. Commenters objected that the applicable state water quality standard and permits for other wastewater treatment plants required a more stringent effluent pH limit of 6.5 to 8.3. The Region responded by altering Concord's final pH limit to conform to that narrower range. The Board holds that the Region did not abuse its discretion in deciding not to reopen the comment period. The Region changed the limit in response to comments and provided a minimally sufficient rationale that allowed Concord to develop an appeal, and thus reopening was not required. The Region failed, however, to adequately explain the reasons for the change to the pH limit. In particular, the Region did not explain why the reasons it offered at the draft permit stage for establishing the less stringent pH limit, i.e, dilution in the Concord River and "operational considerations" at the Concord plant, were no longer valid. The Board is thus unable to determine whether the new pH limit reflects the Region's "considered judgment," warranting a remand for further explanation.

(3) *Wastewater Flow*. The Board upholds the Region in establishing an effluent limit on wastewater "flow" of 1.2 million gallons per day, the "design capacity" of the Concord treatment plant. Concord's principal complaint about the flow limit – i.e., that the Region lacks legal authority to impose an effluent limit on flow – was not preserved for review. Concord also argues that the Region mischaracterized, in its response to public comments, certain factual and legal issues related to increasing the authorized flow capacity for Concord's plant. Concord's claims, however, merely challenge advisory views the Region provided in response to general public comments on the need for additional flow capacity. Such advisory views are not subject to the Board's review.

(4) *DEHP*. The Region did not clearly err or abuse its discretion in imposing quarterly monitoring requirements for DEHP, a probable human carcinogen, that could assist the Region in determining whether permit limits might be appropriate in the future. The Region has broad discretion to impose monitoring requirements in NPDES permits under the Clean Water Act and EPA regulations.

(5) *Sewage Collection System Requirements*. The Region did not clearly err or abuse its discretion in imposing requirements for sewage collection system mapping, operations/ maintenance plans, and annual reports.

Before Environmental Appeals Judges Leslye M. Fraser, Randolph L. Hill, and Catherine R. McCabe.

Opinion of the Board by Judge Hill:

I. *STATEMENT OF THE CASE*

The Town of Concord, Massachusetts ("Concord"), petitions the Environmental Appeals Board ("Board") to review certain conditions of a National Pollutant Discharge Elimination System ("NPDES") permit that authorizes discharges from the Concord Wastewater Treatment Plant to the Concord River. The United States Environmental Protection Agency, Region 1 ("Region"), issued the permit on August 1, 2013, pursuant to Clean Water Act ("CWA") section 402, 33 U.S.C. § 1342. Concord challenges five of the permit's components, including effluent limitations for pH, aluminum, and wastewater flow, a quarterly monitoring requirement for di(2-ethylhexyl) phthalate ("DEHP"), and sewage collection system mapping, operations/maintenance planning, and reporting requirements. Concord claims on various procedural and substantive grounds that the Region clearly erred and abused its discretion in imposing these conditions. It therefore seeks a remand directing the Region to amend or strike these permit conditions. For the reasons discussed below, the Board remands the aluminum and pH limits for further explanation and denies review of all other issues.

II. *PRINCIPLES GUIDING BOARD REVIEW*

Under 40 C.F.R. § 124.19, the Board has discretion to grant or deny review of a permit decision. *See* Consolidated Permit Regulations, 45 Fed. Reg. 33,290, 33,412 (May 19, 1980). 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 exercise of discretion that warrants review. 40 C.F.R. § 124.19(a)(4)(i)(A)-(B) (2013); *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 Procedural Rules Applicable in Permit Appeals, 78 Fed. Reg. 5281, 5282 (Jan. 25, 2013). In considering whether to grant or deny review of a permit, the Board is guided by the preamble to the regulations authorizing appeal under part 124, in which the Agency 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; *see also* 78 Fed. Reg. at 5282.

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 review must demonstrate that any issues and arguments it raises on appeal have been preserved for Board review, unless the issues or arguments were not reasonably ascertainable before the close of the public comment period. 40 C.F.R.

§§ 124.13, .19(a)(4)(i); *see In re City of Moscow*, 10 E.A.D. 135, 141 (EAB 2001); *In re City of Phoenix*, 9 E.A.D. 515, 524 (EAB 2000). Assuming that the issues have been preserved, the 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); *see, e.g.*, *In re Teck Cominco Alaska, Inc.*, 11 E.A.D. 457, 494-95 (EAB 2004); *In re Westborough*, 10 E.A.D. 297, 305, 311-12 (EAB 2002); *In re City of Irving*, 10 E.A.D. 111, 129-30 (EAB 2001), *review denied sub nom. City of Abilene v. EPA*, 325 F.3d 657 (5th Cir. 2003).

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." *See, e.g.*, *In re Steel Dynamics, Inc.*, 8 E.A.D. 165, 191, 224-25 (EAB 2000); *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417-18 (EAB 1997). 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 information in the record." *In re Gov't of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 342 (EAB 2002); *accord Moscow*, 10 E.A.D. at 142; *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). On matters that are fundamentally technical or scientific in nature, the Board typically will defer to a permit issuer's technical expertise and experience, as long as the permit issuer adequately explains its rationale and supports its reasoning in the administrative record. *In re Peabody W. Coal Co.*, 12 E.A.D. 22, 33-34 (EAB 2005).

In reviewing an exercise of discretion by the permit issuer, the Board applies an abuse of discretion standard. *See 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 Ash Grove*, 7 E.A.D. at 397 ("[A]cts of discretion must be adequately explained and justified."); *see also Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 48 (1983) ("We have frequently reiterated that an agency must cogently explain why it has exercised its discretion in a given manner * * *.").

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), 33 U.S.C. § 1251(a). To achieve this objective, the Act prohibits the discharge of pollutants into the waters of the United States, unless authorized by an NPDES or other CWA permit. *See* CWA §§ 301(a), 402, 33 U.S.C. §§ 1311(a), 1342. NPDES permits contain provisions that address two statutory mechanisms for protecting water quality: (1) effluent limitations, which are established by EPA on an industry basis or developed in the context of individual permit decisions; and (2) water quality standards, which generally are promulgated by states and approved by EPA. *See* CWA §§ 301, 303, 304(b), 33 U.S.C. §§ 1311, 1313, 1314(b); 40 C.F.R. pts. 122, 125, 131.

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. CWA §§ 301(b), 304(b), 33 U.S.C. §§ 1311(b), 1314(b); 40 C.F.R. § 122.44. Water quality standards, by contrast, are comprised of three components: (1) "designated uses" of a water body, such as public drinking supply, recreation, or wildlife habitat; (2) "water quality criteria," 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), 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. §§ 131.10-.12. The statute 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), 33 U.S.C. §§ 1311(b)(1)(C), 1341(a)(1)-(2); 40 C.F.R. §§ 122.4(d), .44(d)(1).

Effluent limitations may be either "technology-based" or "water quality-based." *See* CWA § 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C). EPA develops technology-based effluent limitations ("TBELs") on an industry-by-industry basis, establishing in each instance a minimum level of treatment that the Agency deems technologically available and economically achievable for facilities within that specific industry. *See* CWA §§ 301(b), 304(b), 33 U.S.C. §§ 1311(b), 1314(b); 40 C.F.R. pt. 125, subpt. A; *see* 40 C.F.R. pts. 405-471 (effluent limitations guidelines for various point source categories). If EPA has not developed industry-wide limits, the NPDES permit writer develops TBELs on a case-by-case basis utilizing his or her best professional judgment. *See* CWA § 402(a)(1)(B), 33 U.S.C. § 1342(a)(1)(B). Water quality-based effluent limitations ("WQBELs"), on the other hand, are more stringent permit limits used

where technology-based standards are not sufficient to ensure that water quality standards will be met.

Under the federal regulations implementing the NPDES program, permit issuers are required to determine whether a given point source discharge "*causes, has the reasonable potential to cause, or contributes to*" an exceedance of the narrative or numeric criteria for various pollutants set forth in state water quality standards. 40 C.F.R. § 122.44(d)(1)(ii). This regulatory requirement, sometimes described as the "*reasonable potential analysis*" requirement, provides in full:

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

Id.

If a discharge is found to cause, have the reasonable potential to cause, or contribute to exceedances of numeric or narrative state water quality criteria, the permit writer must calculate WQBELs for the relevant pollutants. 40 C.F.R. § 122.44(d)(1)(i), (iii)-(vi). The permit writer must then compare the resulting WQBELs to any TBELs developed for particular pollutants and incorporate the more stringent set of effluent limitations into the permit. CWA § 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44(d)(1). EPA has developed technical guidance over the years to assist permit writers in developing WQBELs. *See, e.g.*, Office of Water, U.S. EPA, EPA/505/2-90-001, *Technical Support Document for Water Quality-Based Toxics Control* ch. 3 (Mar. 1991); *see also* Office of Water, U.S. EPA, EPA-833-K-10-001, *U.S. EPA NPDES Permit Writers' Manual* ch. 6 (Sept. 2010).

IV. *PROCEDURAL AND FACTUAL HISTORY*

The Town of Concord owns and its Department of Public Works operates the Concord Wastewater Treatment Plant, an advanced secondary treatment facility, at 509 Bedford Street in Concord, Massachusetts. The plant serves a population of 6,500 through a separate sanitary sewer collection system and also accepts septage from unsewered portions of the Town. Region 1, U.S. EPA, *Concord Wastewater Treatment Plant, Fact Sheet for Draft NPDES Permit No. MA0100668* pt. II, at 4-5 (July 13, 2012) ("Fact Sheet"). The plant discharges

treated wastewater through Outfall 001 into the Concord River, several miles upstream of the Town of Billerica, which draws water from the river for drinking water purposes. *Id*. pts. II, V.B.3, at 4, 8.

The Commonwealth of Massachusetts classifies the stretch of river into which Concord's plant discharges as a "Class B Warm Water Fishery" and a "Treated Water Supply." 314 Mass. Code Regs. § 4.06 tbl.18 (2013). These types of waters are designated as habitat for fish, other aquatic life, and wildlife, for primary and secondary contact recreation (e.g., swimming, boating, fishing), and as public water supply (with appropriate treatment). *Id*. § 4.05(3)(b). The Commonwealth also categorizes this stretch as "impaired" (i.e., failing to meet water quality criteria) under CWA section 303(d), 33 U.S.C. § 1313(d), for total phosphorus, mercury, and fecal coliform, requiring preparation of Total Maximum Daily Loads ("TMDLs") for those pollutants.[1] *See* Mass. Div. of Watershed Mgmt., *Year 2010 Integrated List of Waters* 162 (Nov. 2011). Finally, Congress designated this stretch as a "recreational river" under the Wild and Scenic Rivers Act, administered by the National Park Service. *See* Sudbury, Assabet, and Concord Wild and Scenic Rivers Act, Pub. L. No. 106-20, § 2(b)(iv), 113 Stat. 30 (1999) (codified at 16 U.S.C. § 1274(a)(160)(A)(iv)).

The Town's prior NPDES permit expired on February 28, 2011, and was administratively continued in accordance with 40 C.F.R. § 122.6(a)-(b). The Region subsequently prepared and issued a new draft permit and accompanying fact sheet on July 13, 2012. *See* Region 1, U.S. EPA, *Concord Wastewater Treatment Plant, Draft NPDES Permit No. MA0100668* (draft July 13, 2012) ("Draft Permit"); Fact Sheet. From July 13 through August 11, 2012, the Region accepted public comments on the draft permit. Among other things, the draft permit continued an existing TBEL for pH and added a new WQBEL for total recoverable aluminum, a new quarterly monitoring requirement for di(2-ethylhexyl) phthalate, and new mapping/planning/reporting requirements for the sewage collection system. *See* Draft Permit pts. I.A.1, I.C.4-.6, at 2-3, 5, 7-9; Fact Sheet pts. V.B.5-.6, VI, at 9, 11-14, 17-20. The draft permit also carried over from the prior NPDES permit an average monthly wastewater effluent flow limitation of 1.2 million gallons per day, which the Town's permit reissuance

[1] A TMDL establishes the "loading capacity" of an impaired water body, which is the "greatest amount" of a pollutant that the water body can receive without violating water quality standards for that pollutant, and then allocates that loading capacity to point and nonpoint source discharges of that pollutant to that water body. *In re City of Homedale Wastewater Treatment Plant*, 16 E.A.D. 421, 424 (EAB 2014) (citing 40 C.F.R. § 130.2(f); *In re City of Moscow*, 10 E.A.D. 135, 140 (EAB 2001)).

application had identified as the treatment plant's design flow rate. *See* Draft Permit pt. I.A.1, at 2; Fact Sheet pt. V.B.4, at 8; Town of Concord, *NPDES Form 2A, Permit Reissuance Application* pt. A.6.a, at 3 (Sept. 2010).

The Town and four other parties – the Concord Business Partnership, OARS, Inc. ("OARS"), the Sudbury, Assabet, and Concord Wild and Scenic River Stewardship Council ("RSC"), and the National Park Service – submitted comments on various aspects of the draft permit. The Region prepared a response to those comments and issued that document, along with the new final NPDES permit, on August 1, 2013. *See* Region 1, U.S. EPA, *Concord Wastewater Treatment Plant, Final NPDES Permit No. MA0100668* (issued Aug. 1, 2013) ("Final Permit"); Region 1, U.S. EPA, *Response to Public Comments on NPDES Permit No. MA0100668* (Aug. 1, 2013) ("RTC"). The final permit incorporated new, more stringent WQBELs for pH and aluminum than had been proposed in the draft permit. It also included the wastewater flow limit, DEHP monitoring, and collection system requirements unchanged from the draft permit.

Concord timely filed a petition for review of its new NPDES permit. *See* Town of Concord Petition for Review (Sept. 9, 2013) ("Pet."). The Region filed a response to the petition, and Concord filed a reply to the Region's response. *See* EPA Region 1 Response Brief (Oct. 31, 2013) ("Resp."); Town of Concord Reply Brief (Nov. 15, 2013) ("Reply"). The Board heard oral argument in the case on May 22, 2014. *See* Oral Argument Transcript ("EAB Oral Arg. Tr.").

V. *ANALYSIS*

A. *The Region Clearly Erred in Revising the Effluent Limit for Aluminum Without Sufficient Explanation in the Administrative Record*

In the draft permit, the Region proposed establishing an effluent limit for aluminum of 306 micrograms per liter ("μg/L") (monthly average). In the final permit, the Region changed the limit to 255 μg/L, largely due to a change in its estimate of the low flow conditions in the Concord River. Concord claims the Region improperly failed to provide an adequate explanation of the changes in the new aluminum calculations. Concord also challenges the permit limit on several additional substantive grounds. The Board finds that the Region failed to provide an adequate explanation for the changed limit that reflects application of its considered judgment. The Board therefore remands the aluminum limit to the Region for further explanation.

1. *Background on the Region's Change to the Aluminum Effluent Limit Between the Draft and Final Permits*

In Concord's draft permit, the Region proposed an effluent limit for aluminum based on its analysis of the "reasonable potential" for Concord's discharge of aluminum to cause or contribute to a violation of Massachusetts water quality standards. *See* 40 C.F.R. § 122.44(d)(1). In determining "reasonable potential," the Region considered several factors, including the concentration of aluminum in Concord's discharge and the available dilution in the Concord River. Fact Sheet pt. V.B.2, at 7. The Region based the available dilution on the use of the 7Q10 flow value (i.e., the lowest seven-day average flow occurring once every ten years) in its calculations, as required by Massachusetts' water quality standards. *Id*. (citing 314 Mass. Code Regs. § 4.03(3)). Consistent with general EPA practice, the Region estimated the maximum projected concentration from Concord's discharge, assumed that such discharge would occur during the period of lowest flow (the 7Q10), and compared the resulting estimated instream concentration to the water quality criterion for the Concord River. Because the estimated instream concentration exceeded the relevant water quality criterion, the Region determined there would be "reasonable potential" for Concord's discharge to cause or contribute to a violation of the water quality standard, and it established an effluent limit such that the estimated instream concentration would not exceed the water quality standard during 7Q10 conditions. *Id*. pt. V.B.6, at 11-13.

The Region received a comment from OARS, a local non-profit organization, that "[t]he calculations of 7Q10 in the Fact Sheet are not clear and are difficult to interpret. We request that a clearer calculation of the 7Q10 be provided so that we may properly assess its accuracy." RTC cmt. C7, at 33. Another commenter stated that "[t]he 7Q10 flow calculations are not straight forward and should be explained more clearly." *Id*. cmt. E5, at 44 (RSC comments). In response to those comments, the Region recalculated the 7Q10 value for the Concord River at the point of Concord's discharge. While the methodology for the revised calculation was largely the same as the one the Region used in the draft permit, the Region made several critical revisions.

First, whereas the Region used United States Geological Survey ("USGS") flow gage data for the years 1971-2000 in the draft permit, the Region used USGS data for 1993-2012 in the final permit. *Compare* Fact Sheet app. B at 1-2, *with* RTC resp. C7, at 33-34, & app. A at 1-2. Because the low flow is generally lower in more recent times, substituting the newer data caused the 7Q10 value to decrease. Second, the Region also modified its calculation of the "flow factor" for the river, i.e., an estimate of the flow in the river from sources other than

wastewater discharges during 7Q10 periods. RTC resp. C7, at 33. In the draft permit, the Region adjusted the flow factor downward to reflect the discharge from the Maynard Wastewater Treatment Plant. In the final permit, by contrast, the Region decreased the flow factor to reflect discharges from Maynard *and* three other wastewater treatment facilities along that stretch of the River, and increased the flow factor for a withdrawal of water by the Town of Billerica. Third, the Region also used newer effluent data for the Maynard plant as an input to the flow factor.

All of these adjustments caused the 7Q10 value to decrease significantly, from 21.9 million gallons per day to 16.8 million gallons per day.[2] The Region adjusted the final aluminum limit accordingly, dropping it to 255 μg/l.

2. *The Region Failed to Provide an Adequate Explanation for the Changes to the 7Q10 Flow Value Calculation*

The Region as permit issuer has certain procedural obligations when it revises a draft permit. The permitting rules require the permit issuer to "specify," in the response to comments document, "which provisions, if any, of the draft permit have been changed in the final permit decision, and the *reasons for the change*[.]" 40 C.F.R. § 124.17(a)(1) (emphasis added). As the Board has stated numerous times:

> Compliance with this requirement is of primary importance because it ensures that all significant permit terms have been properly noted in the record of the proceeding and illuminates the permit issuer's rationale for including key terms. It further ensures that interested parties have an opportunity to adequately prepare a petition for review and that any changes in the draft permit are subject to effective review. Absent an explanation for permit changes, the record does not reflect the "considered judgment" necessary to support the permit determination. Where the permit issuer fails to adequately identify and explain changes to the permit as 40 C.F.R. § 124.17(a)(1) requires, the Board has not hesitated to remand the permit to the permitting agency for further consideration.

In re ConocoPhillips Co., 13 E.A.D. 768, 780 (EAB 2008) (quotation marks and citations omitted).

[2] The Region also revised the drainage area of the relevant stretch of the Concord River from 284 square miles to 286 square miles, which caused the 7Q10 value to decrease by a small additional amount.

The Board recognizes that the current case is distinguishable from *ConocoPhillips*, where the response to comments contained virtually no discussion of the changes to the permit. In this case, the Region described the steps it used to calculate the revised 7Q10 value, but it failed to explain *why* it changed the calculation. In particular, the Region substituted a new data set from the USGS gages, used newer data and revised the estimate of flow from four other wastewater treatment plants contributing to the river, and added an adjustment for the withdrawal of water from the Town of Billerica. RTC resp. C8, at 34, & app. A at 1-2, 4-7. But the Region provided no explanation for why it made any of these changes, forcing Concord and the Board to guess at the precise reasons for changes that resulted in a much more stringent effluent limit. And none of the changes directly responded to the public comments, which did not criticize the original calculation but instead asked only that the Region explain it more clearly.

At oral argument, counsel for the Region explained that the Region carried over the 7Q10 calculation from Concord's 2006 permit and incorporated it, without change, into the draft permit fact sheet. EAB Oral Arg. Tr. at 66. Counsel conceded that the response to comments document did not explain the reasons for the subsequent substitution of the USGS data in the calculation for the final permit, but argued that "it's self-evident that newer data would be more representative of the conditions in the river as they are today rather than in 2000." *Id*. Similarly, in its brief, the Region argued that using the "most currently available data * * * is logical and rational" in light of the need to assure compliance with water quality standards. Resp. at 28-29. Counsel may be correct that using the latest data is "logical and rational" or "self-evident[ly]" more representative. But the permit issuer did not make those conclusions in the administrative record, nor explain in any detail the other adjustments to the calculation. This approach does not satisfy the section 124.17(a)(1) requirement to explain "the reasons for the change." Accordingly, the Board remands the aluminum limit for further explanation as to the changes in the 7Q10 calculation and the justification for the data used in the new calculation.[3]

[3] The Region argues that Concord failed to preserve one of its complaints regarding the calculation of the 7Q10 value, i.e., that the Region erred in using effluent flow data for the other four contributing wastewater treatment plants only for the summer months, because no one commented to that effect during the public comment period. Resp. at 29 (citing 40 C.F.R. § 124.19(a)(4)(ii)); *see infra* Part V.A.4 (discussing this regulation). While Concord may not have raised this precise subissue in its comments, the issue is linked to other issues related to the change in calculation. The Region should address Concord's argument on its merits as part of the decision on remand.

Although we are remanding for additional explanation as to the reasons and basis for the revised 7Q10 flow value, the Board also analyzes Concord's other challenges to the aluminum effluent limit in order to narrow the issues for consideration on remand.

3. *The Region Appropriately Applied Massachusetts Water Quality Standards in Establishing the Aluminum Effluent Limit*

We conclude that the Region properly relied on EPA's National Recommended Water Quality Criterion for aluminum in establishing the aluminum effluent limit.[4] Under Massachusetts law, the Commonwealth will adopt a national recommended criterion as the state water quality standard *unless* the Commonwealth has developed a site-specific criterion or made a determination that the naturally occurring background concentration of the pollutant in question is higher than the national criterion. 314 Mass. Code Regs. § 4.05(5)(e). Because, at this writing, Massachusetts has neither adopted a site-specific criterion for the Concord River nor determined that the River's natural background level of aluminum is higher than the national criterion, the Region was required to use the national recommended criterion to establish the aluminum effluent limit. *Id*.; *see In re City of Attleboro Wastewater Treatment Plant*, 14 E.A.D. 398, 460 (EAB 2009).

Concord asserts that the aluminum concentration in water upstream of Concord's discharge exceeds the effluent limit, which suggests that the aluminum may be naturally occurring. Pet. at 19. Concord also states that Massachusetts is currently evaluating whether to set a new water quality criterion for aluminum. *Id*. at 20. Concord argues, therefore, that it is premature or unjustified for the Region to establish an effluent limit based on the recommended criterion. Concord further argues that EPA guidance indicates the national recommended criterion for aluminum "may be significantly over-protective" and therefore should not be used without site-specific modification. *Id*. at 21.

Even if Concord were correct on all these points, they do not demonstrate that the Region erred. The Region had no obligation to wait, before proceeding with this NPDES permit reissuance action, until such uncertain future time as Massachusetts may choose to revise its aluminum water quality standards. Instead, the Region had the discretion to proceed with reissuing the permit to

[4] EPA publishes recommended water quality criteria for pollutants under the authority of CWA § 304(a), 33 U.S.C. § 1314(a), for use by states in developing their water quality standards. *See* http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm.

Concord in accordance with the legal requirements in existence at the time. *In re Dominion Energy Brayton Point, LLC* ("*Dominion I*"), 12 E.A.D. 490, 614-16 (EAB 2006) (permit issuers must "'apply the CWA statute and implementing regulations in effect at the time the final permit decision is made'" (quoting *In re Phelps Dodge Corp.*, 10 E.A.D. 460, 478 n.10 (EAB 2002))); *cf. In re Upper Blackstone Water Pollution Abatement Dist.*, 14 E.A.D. 577, 605 (EAB) (the CWA "does not contemplate a delay in processing applications for permit renewal to wait for development" of additional requirements), *appeal dismissed sub nom. Conservation Law Found., Inc. v. EPA*, No. 10-2141 (1st Cir. 2010).

4. *Concord Failed to Preserve Its Other Issues Concerning the Aluminum Effluent Limit for Review*

Concord argues that the Region clearly erred in basing its reasonable potential analysis on Concord's effluent data for the period from January 2009 to January 2011. Concord asserts that the level of aluminum in Concord's discharge has been decreasing due to "continuing efforts to optimize its treatment system" and that use of more recent effluent data "may well lead" to the conclusion that a water quality-based effluent limit is unnecessary. Pet. at 25.

EPA regulations governing NPDES permits require a party to raise all "reasonably ascertainable issues and submit all reasonably available arguments" as part of its public comments on a permit. 40 C.F.R. § 124.13. A petition for review of an NPDES permit "must demonstrate, by providing specific citation to the administrative record * * * that each issue being raised in the petition was raised during the public comment period * * * [or] explain why such issue[] [was] not required to be raised during the public comment period[.]" 40 C.F.R. § 124.19(a)(4)(ii). The Board regularly declines to review on the merits issues that were not raised in public comments. *See, e.g.*, *Attleboro*, 14 E.A.D. at 405-06, 431 (collecting cases).

The issue of whether to rely on more recent effluent data was "clearly ascertainable" because the Region used the 2009-2011 data to calculate reasonable potential in the draft permit. *See* Fact Sheet app. C. Concord makes no attempt in its petition or reply brief to show that it or any other commenter submitted comments on this issue or to explain why it was not necessary to raise the issue in the public comment period. Concord has failed to comply with the requirements of section 124.19(a)(4)(ii). The issue is therefore waived.

Concord next argues that the Region erred in setting the average monthly aluminum effluent limit equal to the chronic wasteload allocation for aluminum, contrary to the Agency's own guidance for establishing water quality-based effluent limits, which "discourages" that practice because it does not address

effluent variability. Pet. at 24 (citing *Technical Support Document for Water Quality-Based Toxics Control* at 104). Concord failed to preserve this issue as well. The Region set the aluminum limit equal to the chronic wasteload allocation in the draft permit, Fact Sheet pt. V.B.6, at 13-14, yet received no comments from any party criticizing that approach. The final permit used the exact same approach. RTC app. A at 7. Again, Concord cites to no comments nor explains why the issue need not have been raised. The issue is therefore waived. *See* 40 C.F.R. § 124.19(a)(4)(ii).

Concord also failed to preserve the argument that the Region failed to develop a fair and equitable aluminum effluent limit for the wastewater plant. Concord claims that at least eight other wastewater treatment facilities discharge aluminum upstream and purportedly consume all the assimilative capacity of the river, effectively forcing Concord to take responsibility for all of the necessary reductions in aluminum. Concord argues that "[t]he appropriate mechanism" would be for Massachusetts to develop a Total Maximum Daily Load or to establish aluminum limits for all of the dischargers on a watershed basis before EPA imposes an effluent limit on Concord. Pet. at 23; Reply at 10. In its reply brief, Concord cites to its public comments on the permit as evidence that it preserved this issue for review.[5] Reply at 10 (referencing RTC cmt. A17, at 18). In the cited comment, however, Concord noted only that there was no TMDL for the Concord River because Massachusetts had not listed the river as impaired for aluminum under section 303(d) of the CWA. RTC cmt. A17, at 18; *see* CWA § 303(d), 33 U.S.C. § 1313(d). Although obscure, Concord's comments appear to assert that establishment of a water quality-based effluent limit for aluminum is unnecessary, an issue to which the Region responded. RTC resp. A17, at 18. But we cannot fairly read Concord's comments to assert that the effluent limit was unfair or inequitable, so the issue is waived.[6]

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[5] Concord did not cite to the specific comment in its petition; rather, Concord apparently included the citation in its reply brief in response to the Region's assertion that Concord had failed to comply with 40 C.F.R. § 124.19(a)(4)(ii). The Board cautions that failure to comply with this requirement in a party's petition for review is grounds to find an issue not preserved for review. Providing a citation in the reply brief will not cure the failure to comply. *Cf. In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 126 n.9 (EAB 1999) ("New issues raised for the first time at the reply stage of the[] proceedings are equivalent to late-filed appeals and must be denied on the basis of timeliness.").

[6] The Region responded to Concord's obscure suggestion that a water quality-based effluent limit is unnecessary by explaining that, regardless of whether a water is listed as impaired for a pollutant, EPA must include an effluent limit for that pollutant if there is reasonable potential for the discharge to cause or contribute to a violation of

Finally, Concord failed to preserve its argument that the Region should have established a less stringent effluent limit for aluminum in the wintertime. Concord asserts that the Region did not give any consideration to establishing a seasonally varying effluent limit for aluminum. According to Concord, greater dilution in wintertime from higher stream flows would support a less stringent winter aluminum limit. Because the Region established a seasonally varying limit for phosphorous, Concord concludes that the Region should have done the same for aluminum. Pet. at 25. No commenter on the draft permit suggested establishing seasonal limits for aluminum, however. In its comments on the draft permit, Concord did discuss seasonal variability in the concentration of aluminum in its effluent, asserting that the higher concentrations in the discharge were occurring in winter when instream flows were higher.[7] RTC cmts. A5, A18, at 8, 18. Yet, Concord never suggested that the Region establish seasonal limits. Rather, Concord requested that the Region recalculate the "reasonable potential" for its discharges based only on the summer effluent data instead of using year-round data. *Id*. cmt. A5, at 8. In other words, Concord's comments recommended that the Region consider seasonal variation to determine whether an effluent limit was necessary, not to establish a seasonally varying limit.[8] The issue of establishing a seasonally varying limit is therefore waived.

B. *The Region Failed to Demonstrate the Exercise of Considered Judgment in Revising the Effluent Limit for pH*

Concord also challenges the Region's effluent limit for pH.[9] In the draft permit, the Region proposed requiring that the pH of Concord's discharge remain

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water quality standards. RTC resp. A17, at 18. The Board agrees with the Region that, under EPA regulations, a permit issuer must establish an effluent limit when issuing an NPDES permit and need not wait for a TMDL to be established. *See Upper Blackstone*, 14 E.A.D. at 604-05 (construing 40 C.F.R. § 122.44(d)(1)(vi)-(vii)). This same argument would answer Concord's claim that setting a water quality-based effluent limit is not fair or equitable.

[7] As with the previous issue, Concord included citations to these comments for the first time in its reply brief, failing to comply with 40 C.F.R. § 124.19(a)(4)(ii) by citing to the comments in its petition. *See supra* note 5.

[8] The Region performed Concord's requested recalculation and still found reasonable potential. RTC resp. A5, at 10 (noting that 95th percentile value of Concord's discharge for May-October 2009-2011 effluent data still demonstrated reasonable potential).

[9] pH is an expression of hydrogen ion (H^+) activity in an aqueous solution, using a logarithmic scale of 0 to 14 standard units. Solutions with pH 7.0 are neutral, while

between 6.0 and 8.3 standard units, the same pH range as in Concord's prior permits. Draft Permit pt. I.A.1, at 2, 5. In the final permit, the Region raised the minimum pH limit to 6.5, making it more stringent. Final Permit pt. I.A.1, at 2, 5. Concord claims that the Region improperly failed to reopen the comment period to allow public input on the change to the minimum pH limit and failed to explain adequately the reasons for the change. Concord also asserts that the administrative record does not support the Region's conclusions regarding the need to adjust the pH limit. The Board concludes that the Region did not abuse its discretion in deciding not to reopen the comment period on the pH limit, but failed to provide a sufficient explanation for the changed limit that reflects application of its considered judgment. The Board therefore remands the pH limit to the Region for further consideration.

1. *Factual Background on the pH Effluent Limit*

The relevant Massachusetts water quality standards specify that Class B waters such as the Concord River "[s]hall [have a pH] in the range of 6.5 through 8.3 standard units and not more than 0.5 units outside of the natural background range." 314 Mass. Code Regs. § 4.05(3)(b)(3). Moreover, "[t]here shall be no change from natural background conditions that would impair any use assigned to [Class B waters]." *Id.* Concord's prior permits contained a broader effluent pH range of 6.0 to 8.3. *E.g.*, Region 1, U.S. EPA, *Concord Wastewater Treatment Plant, Final NPDES Permit No. MA0100668* pt. I.A.1, at 2, 6-7 (issued Jan. 12, 2006) ("2006 Permit"). This limit is consistent with EPA's secondary treatment regulations for all publicly owned treatment works, which generally require discharges from such facilities to have a pH within the range of 6.0 to 9.0. 40 C.F.R. § 133.102(c). In the July 2012 draft NPDES permit, the Region proposed to continue Concord's long-standing pH limit of 6.0 to 8.3. Draft Permit pt. I.A.1.b, at 5. In the fact sheet accompanying the draft permit, the Region explained:

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those with pH less than 7.0 are acidic and those with pH greater than 7.0 are basic. Notably, "although basic solutions are alkaline, 'basicity' and 'alkalinity' are not exactly the same thing. Basicity refers to the ratio of hydrogen and hydroxyl (OH^-) ions in solution, and is directly related to pH. Alkalinity is related to the acid-neutralizing capacity [] of a solution. In aquatic ecosystems, biological processes (e.g., decomposition) that increase the amount of dissolved carbon dioxide or dissolved organic carbon [] decrease pH [i.e., make the solution more acidic] but have no effect on [acid-neutralizing capacity]." U.S. EPA, pH Introduction, *available at* http://www.epa.gov/caddis/ssr_ph_int.html.

> The current permit requires effluent pH to be between 6.0 and 8.3. The minimum pH limit of 6.0 is less stringent than the customary limit of 6.5 for facilities discharging to Class B waters, and was granted in the current permit based on dilution levels and operational considerations. Because the receiving water has not shown any adverse effects due to occasional low pH in the discharge, the pH range requirement in the draft permit is maintained as 6.0 to 8.3.

Fact Sheet pt. V.B.5, at 9.

Several parties commented on the draft pH limit. With the exception of Concord, all of the comments recommended that the Region raise Concord's minimum pH limit to 6.5, equivalent to the water quality standard. *See, e.g.*, RTC cmts. C6, D7, at 31-32 (OARS comments), 42 (National Park Service comments). Several commenters noted that other wastewater treatment plants in the same watershed have pH limits of 6.5 to 8.3, equivalent to the water quality standard, and asserted that the Region should set the same limit for Concord or else explain more fully why Concord merits a less stringent limit. *Id.; see also* RTC cmt. E4, at 44 (RSC comments) (asking the Region to explain the "operational considerations" mentioned in the fact sheet).

The Region decided to incorporate the more stringent minimum pH limit of 6.5 in Concord's final permit. Final Permit pt. I.A.1.b, at 5. The Region also included a new "pH Limit Adjustment" special permit condition, which provides that Concord may submit a written request to change the pH limit range to one no less restrictive than 6.0 to 9.0. *Id*. pt. I.F, at 13. As part of its request, Concord must submit an approval letter from Massachusetts "stat[ing] that the [Town] has demonstrated to the State's satisfaction that as long as discharges to the receiving water from a specific outfall are within a specific numeric pH range[,] the naturally occurring receiving water pH will be unaltered." *Id*. The Region explained in its response to comments:

> [S]tandard practice for [publicly owned treatment works] permits has been to require that the pH limit range match the pH range of the [water quality standard]. In some instances, EPA has allowed a different pH range where there is sufficient dilution. * * *
>
> After further examination of the upstream data collected [by Concord] during [Whole Effluent Toxicity] tests, it appears that the Concord River upstream of the Concord [Wastewater Treatment Plant] discharge does not always meet the 6.5 minimum pH specified in the Massachusetts Water Quality Standards (314 CMR 4.00). Also, the alkalinity of the receiving water is low (under

> 20 [milligrams per liter ("mg/L"))] at times,[] meaning that the water has little buffering capacity against acidic inputs.[10]
>
> * * * *
>
> Because it is not clear that the Concord River has sufficient buffering capacity to assimilate low-pH discharges without a violation of water quality standards, EPA has decided to change the minimum pH limit to 6.5 until the Town can demonstrate to EPA that lower-pH effluent does not have the potential to cause a violation of water quality standards in the Concord River. Such a demonstration would need to include several samples and examine water quality impacts year-round.

RTC resp. C6, at 32. The Response included a table of the instream data from Concord's Whole Effluent Toxicity tests between September 2009 and March 2012 that shows one instance where the pH of the River upstream of the treatment plant was 6.3 and one instance where the pH was 6.5, as well as four instances where the alkalinity was below 20 mg/L (one of those on the same date as the 6.5 pH measurement). *Id*. tbl.3. The Region concluded from these data that upstream river water "occasionally measured pH values less than * * * 6.5, meaning that dilution cannot be used in establishing the effluent limit." *Id.* resp. A14, at 17.

2. *The Region Did Not Abuse Its Discretion in Electing Not to Reopen the Comment Period on the pH Limit*

Under EPA's permitting rules, a permit issuer may, in its discretion, reopen the public comment period on a draft NPDES permit "[i]f any data[,] information[,] or arguments submitted during the public comment period * * * appear to raise substantial new questions concerning the permit." 40 C.F.R. § 124.14(b). "The critical elements of this regulatory provision are that new questions must be 'substantial' and that the [permit issuer] 'may' take action." *In re NE Hub Partners, LP*, 7 E.A.D. 561, 585 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3d Cir. 1999). The Board reviews a permit issuer's decision not to reopen the comment period under an "abuse of discretion" standard and affords the permit issuer "substantial deference." *In re*

[10] The "alkalinity" of a water body is a measurement of the carbonates (e.g., calcium, magnesium, sodium, potassium) available to "buffer" or neutralize acids added to that water body. According to a professional geologist cited by the Region, alkalinity should be 20 mg/L or greater to protect aquatic life. *See* RTC resp. C6, at 32 n.18 (citing Brian Oram, B.F. Envtl. Consultants Inc., Water Research Center, *The Role of Alkalinity [in] Citizen Monitoring* (undated), *available at* http://www.water-research.net/Watershed/alkalinity.htm).

Dominion Energy Brayton Point, LLC ("Dominion II"), 13 E.A.D. 407, 416 (EAB 2007); *accord In re City of Palmdale*, 15 E.A.D. 700, 713-14 (EAB 2012). Considerations that inform the Board's review of a permit issuer's decision to reopen the public comment period include:

> (a) Whether existing permit conditions were changed;
>
> (b) Whether new information or new permit conditions were developed in response to comments on the draft permit;
>
> (c) Whether the record adequately explains the permit issuer's reasoning so that a dissatisfied party could develop a permit appeal; and
>
> (d) Whether adding further delay to the permit proceedings would be advisable.

Dominion II, 13 E.A.D. at 416 n.10 (citing *NE Hub*, 7 E.A.D. at 584-88; *In re Old Dominion Elec. Coop.*, 3 E.A.D. 779, 797-98 (Adm'r 1992)); *accord Palmdale*, 15 E.A.D. at 714. Of these four factors, the second and third are most critical to the present dispute.

Concord argues that, based on the materials in the draft permitting record, it "could not have reasonably anticipated" that the pH limit would be changed; thus, the new pH limit was not a "logical outgrowth" of the original proposal but instead was a "substantial new question," requiring the Region to reopen the comment period. Pet. at 27-28 (citing *In re D.C. Water & Sewer Auth.*, 13 E.A.D. 714, 762 (EAB 2008) ("*DC WASA"*)). The Board disagrees with this claim. The Region developed a new permit condition in response to public comments, consistent with the second *Dominion II* factor. The commenters noted that the minimum pH limit in Concord's prior NPDES permits was different from (i.e., less stringent than) the minimum pH limit assigned to all other wastewater treatment plants in the watershed, as well as being lower (i.e., less stringent) than the minimum pH in Massachusetts' water quality standards. The Region directly responded to these comments and provided a substantive reason for changing the pH limit. RTC resps. A14, C6, at 17, 32. This situation is distinguishable from that in *DC WASA*, where the Region "pull[ed] a surprise switcheroo" and completely reversed course on a proposed permit condition without even trying to explain why. *See* 13 E.A.D. at 762. Here, it was foreseeable that the Region might alter the pH limit in light of public comments questioning the Region's rationale for setting Concord's minimum pH lower than the water quality standards. *See Palmdale*, 15 E.A.D. at 717-18.

The Region's decision not to reopen is also consistent with the third *Dominion II* factor. In the response to comments on the draft permit, the Region's explanation was minimally sufficient to allow Concord to develop arguments on appeal. *See* RTC resps. A14, C6, at 17, 32; *Dominion II*, 13 E.A.D. at 416 n.10. Indeed, Concord was able to vigorously contest the new pH limit before the Board, with its arguments serving a similar function as comments on the new information. The Board has held that such an opportunity to contest new material can substitute for reopening the comment period. *See, e.g.*, *In re City of Attleboro Wastewater Treatment Plant*, 14 E.A.D. 398, 464 (EAB 2009) (holding that "the appeal process afforded the [permittee] the opportunity to comment on new material"); *Dominion II*, 13 E.A.D. at 416 (concluding that "the appellate review process affords petitioners the opportunity to question the validity of material added to the administrative record by a [permit issuer] in response to public comments").

The Board finds in this instance that, on balance and in light of the "substantial deference" afforded to the permit issuer, *Dominion II*, 13 E.A.D. at 416, the Region did not abuse its discretion in deciding not to reopen the comment period on the pH limit.

3. *The Region Failed to Adequately Explain the Reasons for Its Change to the pH Effluent Limit*

Concord also argues that the Region's rationale for changing the pH limit is so uncertain, speculative, and arbitrary as to fail the test of "considered judgment" required by Board precedent. *See* Pet. at 26-27. Concord points out that, after reviewing recent instream data, the Region stated only that "'it is not clear that the Concord River has sufficient buffering capacity to assimilate low-pH discharges.'" *Id.* at 26 (quoting RTC resp. C6, at 32). This rationale is not, in Concord's view, sufficient to justify the change. Concord presents two data sets (i.e., 1990 data collected downstream of Concord's wastewater plant and 2006-2012 data collected just upstream of the Billerica wastewater plant) to prove that its discharges do not have a deleterious effect on Concord River pH and that river conditions for pH have not changed significantly in the past twenty years. *Id.* at 29-30 & Exs. J-K.

The Region responds that Concord's Whole Effluent Toxicity test data demonstrated that the instream water quality does not always meet the minimum water quality standard and that the river exhibits low alkalinity in winter months. Accordingly, the Region determined that dilution "should no longer be used to establish the minimum pH limit." Resp. at 21 (citing RTC resp. A14, at 17). The Region further argues that once it became evident that Concord wastewater

treatment plant effluent "could result" in a violation of Massachusetts' minimum pH criterion, the Region was "required" to impose a limit that would "ensure" compliance with water quality standards. *Id*. at 21-22 (citing *DC WASA*, 13 E.A.D. at 764; 40 C.F.R. §§ 122.4(d), .44(d)). The Region also discounts the additional data Concord submitted as either too old or from too far downstream to demonstrate that the Region clearly erred in raising the minimum pH limit. *Id.* at 23.

The Board concludes that the Region erred in not fully explaining the basis for the change to the pH limit. We acknowledge that the Region did explain that it revised the pH limit based on evidence of low alkalinity in the river and data showing that, on at least one occasion, the ambient pH in the Concord River had been below 6.5. Yet, the Region had previously stated in the fact sheet that adequate dilution existed in the river, and that the dilution, plus certain unspecified "operational considerations," justified a less stringent pH limit. Fact Sheet pt. V.B.5, at 9. As noted above, the regulations provide that effluent dilution may be considered, where appropriate, in reasonable potential analyses. 40 C.F.R. § 122.44(d)(1)(ii). In deciding to alter the pH limit, however, the Region failed to explain *why* the level of dilution suddenly was no longer sufficient. It similarly failed to explain *whether* or *how* the unspecified "operational conditions" had changed and the relevance thereof.

The Region also did not fully explain how part of its new rationale – i.e., low alkalinity in the stream (which it had not even mentioned in the fact sheet) – made dilution an irrelevant consideration.[11] As the Region candidly admits in its response brief, it based its determination on an "inherently limited dataset," Resp. at 22, but it did not discuss in the administrative record why those "inherently limited" data were sufficient to support raising the minimum pH limit.

As a result of these deficiencies in the Region's explanation, the Board is unable to determine whether the change to the pH limit reflects the regional decisionmaker's considered judgment. *E.g., In re City of Marlborough*, 12 E.A.D. 235, 245 (EAB 2005) (remanding permit where rationale for effluent limit not sufficiently clear). While the Board "traditionally assigns a heavy burden in permit appeals to petitioners seeking review of issues that are technical

[11] Both the Whole Effluent Toxicity test data set upon which the Region relied and the additional data sets that Concord submitted with its petition show instances where pH was close to or below 6.5, and instances where alkalinity was close to or below 20, but rarely at the same time. *See* RTC resp. C6, at 32 tbl.3; Pet. Ex. K. The Region failed to clearly explain the relationship between low alkalinity, the pH in the stream at that time, and Concord's discharge at pH 6.0 or higher.

in nature," *In re Scituate Wastewater Treatment Plant*, 12 E.A.D. 708, 718 (EAB 2006), we find that the Region has failed to explain sufficiently the relationship between pH, alkalinity, and dilution on the record such that we can defer to its technical judgment. Remand is therefore appropriate.

In so ruling, we do not intend to alter the burden on the Region to justify a water quality-based effluent limit. We agree with the Region that it is required to establish effluent limits to ensure compliance with state water quality standards. *See* Resp. at 22; *see also* CWA § 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44(d)(1)(i). We also agree with Concord that, to establish a water quality-based effluent limit for any pollutant, including pH, the permit issuer must determine that the pollutant will "cause, have reasonable potential to cause, or contribute to" a violation of state water quality standards. But we reject Concord's argument that the Region failed to conduct any such analysis for pH. *See* Reply at 7. A reasonable potential analysis need not take any particular form in the administrative record, but may simply consist of a permit issuer's finding, supported by the record, that reasonable potential exists in light of the factors in section 122.44(d)(1)(ii), and that the chosen effluent limit is necessary to ensure compliance with water quality standards. *In re Town of Newmarket*, 16 E.A.D. 182, 222-24 (EAB 2013).

Nor do we agree with Concord that putting in the special condition, which allows Concord to submit additional data and seek a modified minimum pH limit, improperly shifts the burden of making a reasonable potential analysis from the Region to Concord. We agree with the Region that including such a provision falls within the scope of its discretion to ensure compliance with water quality standards, once it has determined that there is reasonable potential for a pollutant to cause or contribute to a water quality standards violation. Of course, the Region must adequately explain its reasonable potential determination with support in the record, whether it includes a special condition or not.[12] *See, e.g.*, *In re San Jacinto River Auth.*, 14 E.A.D. 688, 702-03 (EAB 2010).

The error here was the Region's decision to abandon its prior approach of allowing Concord to discharge below 6.5, without explaining why, as a technical matter, the level of dilution was no longer adequate or relevant. The Region changed its technical rationale for the pH limit significantly between the draft and

[12] The Region included no similar condition for any other pollutant in the permit and did not explain in the administrative record why such a condition was appropriate for pH but no other pollutants.

final permits; thus, the Region was obligated to explain that change sufficiently to demonstrate exercise of its considered judgment. *Marlborough*, 12 E.A.D. at 245. Remand is warranted to remedy this deficiency.

C. *The Region Did Not Clearly Err or Abuse Its Discretion in Reissuing the Wastewater Flow Limit in Concord's Permit*

In applying for reissuance of its NPDES permit, Concord informed EPA that the "design flow rate" of its treatment plant – i.e., the wastewater flow rate the plant was "built to handle" – is 1.2 million gallons per day. Town of Concord, *NPDES Form 2A, Permit Reissuance Application* pt. A.6.a, at 3 (Sept. 2010); *see* 40 C.F.R. § 122.21(j)(1)(vi). The Region used this figure to derive important permit elements, such as available dilution in the Concord River and water quality-based effluent limits, per the regulatory requirement that "permit effluent limitations, standards, or prohibitions shall be calculated based on design flow." 40 C.F.R. § 122.45(b)(1); *see* Fact Sheet pts. V.B.4, .6, at 8, 10, 12-13, 15-18 & apps. B, D-E; RTC app. A. The Region also imposed an effluent limit on wastewater "flow," setting the limit equal to the design flow rate, as it had in previous iterations of Concord's permit. Permit pt. I.A.1, at 1; *see*, *e.g.*, 2006 Permit pt. I.A.1, at 1.

Prior to draft permit issuance, Concord sought a meeting with the Region to discuss wastewater capacity issues. Concord asked the Region to delay the NPDES process until Concord could complete long-running planning efforts with the Commonwealth of Massachusetts that appeared likely to culminate in a request for an increase in the plant's authorized flow rate. *See* Letter from Richard Reine, Dir., Concord Pub. Works, to Brian Pitt, EPA Region 1 (June 20, 2012); Fact Sheet pt. I, at 4. The Region, however, estimated that such efforts would take a year or more to complete and declined to postpone the permit proceedings for that long a time. Fact Sheet pt. I, at 4. The Region noted that the results of Concord's efforts could be considered "new information for purposes of reopening or modifying the final permit" in the near future, if necessary. *Id.*; *see* 40 C.F.R. § 122.62(a)(2) (authorizing modification of NPDES permits based on new information).

The Region subsequently issued the draft permit, and Concord commented that the 1.2 million gallons per day flow limit "placed constraints" on development and redevelopment opportunities within town boundaries. Letter from Christopher Whelan, Town Mgr., Town of Concord, Mass., to Stephen Perkins, Dir., Office of Ecosystem Protection, Region 1, U.S. EPA 2-3 (Aug. 9, 2010) ("Town Cmts."). Concord briefly summarized its many efforts over the past decade to create additional wastewater capacity, including convening a

Wastewater Planning Task Force, encouraging community-wide water conservation, reducing nonwastewater infiltration/inflow into sewage pipes, and exploring groundwater discharge options to supplement the Concord River discharge. *Id*. at 3. Concord concluded that an increase in the treatment plant's effluent discharge capacity "may be the most viable alternative available," but it did not explicitly request such an increase, presumably because its wastewater options analyses were still ongoing. Instead, Concord stated that "a formal request for a flow increase will require a future modification to the permit and will be initiated via a notice of project change" to Massachusetts. *Id*.

After considering and responding to these and other public comments, the Region issued the final permit with a flow effluent limitation of 1.2 million gallons per day. Permit pt. I.A.1, at 2. Concord now appeals that decision on several grounds.

To begin, Concord asserts that the Region "ignore[d] Concord's interests" and issued the permit with a flow effluent limit that is "0.16 [million gallons per day] below the existing, actual design capacity of the Facility." Pet. at 9. Concord's assertion is contradicted, however, by its own statements in the administrative record. As noted above, Concord supplied the 1.2 million figure in its permit application, and it later corroborated that figure in its comments on the draft permit, where it described the plant as a "1.2 [million gallons per day] advanced wastewater treatment facility." Town Cmts. at 1. Concord offers no record support for the 1.36 million figure it now advances, so the Board has no basis for considering it further.[13]

Concord next argues that EPA lacks legal authority to impose any effluent limitation on "flow" because "flow" is not a "pollutant" under the CWA. Pet. At 10-11. Effluent limits restrict discharges of "pollutants," which are defined as "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat,

[13] In the introductory portions of its petition, Concord asserts that it commissioned an engineering study in 2009 to evaluate flow capacity "bottlenecks" at the wastewater treatment plant. Pet. at 7. Concord claims that "[m]ost of the existing processes were designed to accommodate a flow rate of 1.36 [million gallons per day] average daily flow." *Id*.; *see also* Reply at 4 n.2. Concord does not cite any authority to support this statement and did not submit the study (which presumably is the source of the 1.36 million gallons per day figure) or otherwise indicate that the study is part of the administrative record for this permit. Concord also does not explain the relationship, if any, between the 1.2 and 1.36 million figures, or why it designated the former rather than the latter in its permit application as the plant's "design flow rate."

wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water." CWA § 502(6), 33 U.S.C. § 1362(6); *see* 40 C.F.R. § 122.2 (definitions of "effluent limitation" and "pollutant"). In Concord's view, "[t]he flow or discharge of water itself is not a 'pollutant'" under this definition, and the Region "has no authority to arbitrarily expand the list of 'pollutants' set by statute." Pet. at 11.

Contrary to Concord's claim that all appealed issues "were raised during the public comment period and therefore were preserved for review," *id*. at 1, this issue is wholly new to these permit proceedings. Concord has not identified any references in the public comments to EPA's purported lack of legal authority to regulate flow and essentially concedes, in its reply brief, that there were none. In that brief, Concord argues that "the legal issues of authority are so *closely related* to [other] challenges on flow" that *were* preserved that *they also* should be deemed preserved. *Id*. at 4 (emphasis added).

Concord correctly suggests that, in the past, the Board has adjudicated issues that are "closely related" to preserved issues, but such occasions have been rare. *See, e.g.*, *In re EcoEléctrica, LP*, 7 E.A.D. 56, 63 n.9 (EAB 1997) (reviewing on the merits an unpreserved issue regarding the age of supporting data that was sufficiently closely related to properly preserved issues regarding data quality, which the permit issuer had opportunity to address in response to comments); *In re P.R. Elec. Power Auth.*, 6 E.A.D. 253, 257 n.5 (EAB 1995) (reviewing on the merits a data issue where commenters had generally raised the issue and permit issuer's response to comments adequately addressed related concerns later raised in petition). As a general matter, the Board has insisted that closely related issues be ones that the permit issuer "actually addressed" in its response to comments. *E.g.*, *In re Scituate Wastewater Treatment Plant*, 12 E.A.D. 708, 723 n.7 (EAB 2006); *In re Teck Cominco Alaska Inc.*, 11 E.A.D. 457, 482 n.21 (EAB 2004); *In re New Eng. Plating Co.*, 9 E.A.D. 726, 732-35 (EAB 2001). Such an approach respects permit issuers' primacy in developing and finalizing appropriate NPDES permit conditions while protecting petitioners from overly formalistic applications of appellate procedural rules. *New Eng. Plating*, 9 E.A.D. at 733.

The circumstances of the present dispute do not match these situations. Concord did not raise, and the Region therefore did not grapple with, the question

of its legal authority to regulate flow, prior to finalizing Concord's permit.[14] *See* RTC resps. A1, B1, at 3-5, 21-22. Concord's legal argument therefore fails.

Concord presents a number of other flow-related matters for Board review, including claims that, in the response to comments, the Region arbitrarily concluded Concord does not need increased wastewater flow capacity and erroneously stated it would not process a flow increase request until Massachusetts approved a "Comprehensive Wastewater Management Plan" justifying the increase.[15] Pet. at 11-18. None of these matters warrant a remand because they merely challenge advisory views the Region provided in response to general public comments on the flow capacity question.

As noted above, Concord's comments did not request a specific, quantified flow increase. Instead, Concord stated only that it had become "increasingly evident" that "additional capacity is needed" and expressed Concord's understanding that a formal request for a flow increase would require a future modification to the permit. Town Cmts. at 3. Similarly, the Concord Business Partnership commented that wastewater constraints had forced many of its member companies to modify business plans and/or pay wastewater fees, but it concluded only that "[i]t is imperative that [the Region] consider the merits of allowing the Town of Concord to expand the amount of wastewater that can be treated" at the wastewater plant. RTC cmt. B1, at 21-22. While these comments preserved for appeal the broad question of where to set the flow limit, they did so in a very generic way, without requesting any specific flow volume target or providing data or other information to justify a particular flow increase.

Board case law makes it clear that general comments warrant, at most, only general responses. *E.g.*, *In re Encogen Cogen. Facility*, 8 E.A.D. 244, 251 n.12 (EAB 1999) (holding that, in cases where issues are "raised only generically during the public comment period, the permit issuer is not required to provide

[14] At oral argument, the Region argued that the permit's use of the word "flow" refers to "a restriction on the quantity of effluent flow from the facility and the pollutants therein," and not to the flow of water alone. EAB Oral Arg. Tr. at 103. The Region further suggested that the wastewater plant's treated effluent flow qualifies as a "pollutant" because it is "sewage" or "municipal waste" discharged into water. *Id.* at 104-05 (citing CWA § 502(6), 33 U.S.C. § 1362(6)). The Board acknowledges the Region's argument but does not reach the issue.

[15] As to this latter point, the Region conceded at oral argument that Massachusetts need not approve a comprehensive plan before EPA can change a flow limit. EAB Oral Arg. Tr. at 105; *see also id.* at 107.

more than a generic justification for its decision, and the petitioners cannot raise more specific concerns for the first time on appeal"); *see also In re Dominion I*, 12 E.A.D. at 581-82. In light of this well-established principle, the Region had no obligation to speculate about hypothetical flow rate increases and associated permit effects in its response to the parties' comments. It could simply have confirmed that a flow increase would require a permit modification, cautioned that "[a]uthorizing an increased flow in a permit is not a simple process" (as it did in the initial paragraph of its response), and then stopped right there. RTC resp. A1, at 4.

The Region provided an extended response, however, discussing flow increase approval processes, reclaimed wastewater possibilities, cluster sewer options, and other matters related to how the Region might evaluate a request for a flow increase once it received one. *Id*. resp. A1, at 4-5. The Region may have intended this longer discussion to provide helpful future guidance, but the Region's extended response was not necessary to resolve the broad questions at hand, and it did not establish or alter any legally binding requirements. Even if Concord were correct that the Region erred in its description of the need for a flow increase or the legal prerequisites under Massachusetts law, the Region's extended response was simply advisory, and the Board declines to review it. *Cf. In re Cavenham Forest Indus., Inc.*, 5 E.A.D. 722, 731 n.15 (EAB 1995) (declining to provide advisory opinion on speculative issue); *In re Simpson Paper Co.*, 4 E.A.D. 766, 771 n.10 (EAB 1993) (same).

In summary, the Region supplied general responses that were sufficient answers to general comments on flow capacity questions. The Region supplied no response to the legal question of its authority to impose an effluent limit on wastewater flow, but that question had not been presented to it. Accordingly, the Board denies review of the flow limit.

D. *The Region Did Not Clearly Err or Abuse Its Discretion in Imposing Quarterly Monitoring Requirements for DEHP*

In conducting pollutant scans of treatment plant effluent in 2010-2011, Concord detected di(2-ethylhexyl) phthalate, a chemical compound used to manufacture plastics, on three separate occasions in concentrations that exceeded EPA human health and drinking water criteria.[16] Fact Sheet pt. V.B.6, at 17-18.

[16] Pursuant to the EPA-approved water quality standards established by Massachusetts, EPA's national recommended water quality criteria for DEHP are applicable to the Concord River. *See* 314 Mass. Code Regs. § 4.05(5)(e); Office of Water, U.S. EPA, EPA-822-R-02-047, *National Recommended Water Quality Criteria: 2002*, at 16 (Nov. 2002) (establishing human health criteria for DEHP consumption

DEHP is a probable human carcinogen, and it is "commonly detected in the environment due to the widespread use of plastic products." *Id*. at 17; *see id*. app. G; 57 Fed. Reg. 31,776, 31,782, 31,791 (July 17, 1992). The Region therefore added a new quarterly DEHP monitoring requirement to Concord's permit to allow EPA to evaluate DEHP levels on an ongoing basis and determine whether permit limits might be appropriate in the future. Fact Sheet pt. V.B.6, at 19.

In comments on the draft permit, Concord suggested that DEHP in its effluent derives from newer plastic sewer mains and related piping in its collection system. Town Cmts. at 6. Concord claimed that no effective technologies are available to treat DEHP contamination, so it asked the Region to remove the monitoring requirement or, in the alternative, reduce the monitoring frequency "with an 'opt-out' provision if such monitoring provides no value." *Id*. The Region responded by stating:

> While there is not yet sufficient data to require [a water quality-based] effluent limit for DEHP in Concord's permit, monitoring data submitted in the reapplication indicates it is present in quantities that exceed the human health criteria before dilution in the receiving water. Given that there is a drinking water source downstream, there is ample justification for the monitoring requirement. In the case of a water quality-based limit, feasibility of treatment is not a factor that the CWA allows permitting authorities to consider.

RTC resp. A13, at 17; *see id*. app. A at 15-18. The Region also cautioned Concord to exercise stringent quality controls in conducting DEHP sampling and analysis, explaining that plastics in test equipment potentially can skew test results. *Id*. resp. A13, at 17.

On appeal, Concord argues that the Region clearly erred and abused its discretion by imposing the DEHP monitoring requirement and by failing to respond adequately to Concord's comments objecting to the requirement, particularly the recommendation for an "opt-out" provision. Pet. at 31-33. The Board is not persuaded that either of these claims has merit.

Section 308(a) of the Act "confers broad authority on the Agency to impose monitoring requirements on any point source." *In re City of Port St. Joe*, 7 E.A.D. 275, 306 (EAB 1997). This is true regardless of a pollutant's potential

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(water and organisms) of 1.2 μg/L). The drinking water "Maximum Contaminant Level" for DEHP is 6 μg/L. 40 C.F.R. § 141.61(c); *see also id*. pt. 141, subpt. O, app. A.

to cause or contribute to a water quality violation, and regardless of whether pollutant discharges are restricted by an effluent limit. *See In re Town of Ashland Wastewater Treatment Facility*, 9 E.A.D. 661, 671-72 (EAB 2001) (denying review of color monitoring requirement); *Port St. Joe*, 7 E.A.D. at 306-11 (denying review of dioxin/furan monitoring requirements). The statute provides:

> Whenever required to carry out the objective of this chapter, including but not limited to (1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition, or effluent standard, * * * (A) the Administrator shall require the owner or operator of any point source to * * * (iii) install, use, and maintain such monitoring equipment or methods * * *, (iv) sample such effluents * * *, and (v) provide such other information as [the Administrator] may reasonably require[.]

CWA § 308(a), 33 U.S.C. § 1318(a). The Board has held that, "for a petitioner to raise a material issue of fact as to whether an information gathering requirement in a permit is unreasonable and therefore exceeds the Agency's authority under Section 308(a), a petitioner must cite evidence sufficient to support a finding that there is no basis in fact for the Agency to require information in the first place." *Port St. Joe*, 7 E.A.D. at 310.

In this case, Concord fails to cite data or other evidence that refutes the critical facts, established in the record, that the wastewater plant's effluent exceeded recommended human health criteria and drinking water standards on three separate occasions in 2010-2011, and that the river requires prudent management to ensure the Town of Billerica's drinking water supply is protected. Concord offers only speculative arguments regarding the potential sources of the contamination, Pet. at 32, which are insufficient to demonstrate clear error. Nor is the feasibility of treatment relevant because, as the Region noted, that factor may not be considered when establishing any future water quality-based effluent limits. RTC resp. A.13, at 17; *see* CWA § 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44(d). Concord also argues that DEHP will dissipate quickly in the oxygenated river environment and thus is not a downstream concern, but it failed to substantiate its position with scientific studies or other credible evidence. *See* Pet. at 31-33.

With respect to Concord's "opt-out" recommendation, the permitting regulations require permit issuers to "briefly describe and respond to all significant comments on the draft permit." 40 C.F.R. § 124.17(a)(2). Responses, though brief, must "be clear and thorough enough to adequately encompass the issues raised by the commenter," and the record must reflect "considered

judgment," meaning the permit issuer must "articulate with reasonable clarity the reasons for its conclusions and the significance of the crucial facts" used to reach those conclusions. *In re Wash. Aqueduct Water Supply Sys.*, 11 E.A.D. 565, 585-86 (EAB 2004). Here, the Region did not explicitly address Concord's opt-out suggestion, but its entire response conveyed its view that monitoring is necessary to collect data, rule out errors possibly introduced by testing protocols, and ensure robust protection of downstream uses. Such a response directly contradicts Concord's idea that monitoring might prove valueless and thereby would justify a cessation of the monitoring requirement (i.e., the "opt-out"). As such, the Region's response adequately reflects considered judgment.[17]

In summary, the Region articulated a reasonable basis for establishing a DEHP monitoring requirement, which Concord failed to refute. The Region also adequately responded to Concord's comments on this issue. Accordingly, the Board denies review of the DEHP requirement.

E. *The Region Did Not Clearly Err or Abuse Its Discretion in Imposing Requirements for Sewage Collection System Mapping, Operations and Maintenance Plans, and Annual Reports*

In a push to improve sewer collection system oversight and concomitantly reduce overflows and other permit violations that may adversely affect human health or the environment, the Region over the past few years has added a suite of new standard conditions to reissued municipal permits. *See* RTC resp. A9, at 14. These conditions include requirements to map sewer collection systems, prepare operations and maintenance ("O&M") plans for sewer collection systems, and provide annual sewer collection system reports. The Region incorporated such conditions in Concord's draft permit, but Concord objected, claiming the requirements were overly prescriptive, burdensome, and exceeded the Region's NPDES authority. Town Cmts. at 5. The Region disagreed and chose to retain the conditions in Concord's final permit. *See* Permit pts. I.C.4-.6; RTC resp. A9, at 13-14.

On appeal, Concord argues that the Region lacks legal authority to impose these collection system conditions. Pet. at 33-35. Concord acknowledges that, under the NPDES regulations, it is obligated to "'properly operate and maintain

[17] Of course, it would be good practice for permit issuers to respond explicitly to explicit suggestions for changes to a draft permit, such as a recommendation for an "opt-out" provision, in order to provide commenters an answer to the issues they have raised. By so doing, the Region also would provide the Board with a clear administrative record on review.

all facilities and systems of treatment and control (and related appurtenances) * * * to achieve compliance with the conditions of this permit.'" Pet. at 33 (quoting 40 C.F.R. § 122.41(e)). It contends, however, that it already has a "robust mapping system and [O&M] procedures in place" that work well, and it claims the record lacks any evidence that these existing procedures do not achieve the overflow risk minimization the Region seeks. *Id*. at 35. Concord criticizes the Region's decision to impose uniform collection systems requirements on all municipal permittees, claiming the Region acted "without giving any consideration to what each facility is [already] doing," rendering its decision in this instance unreasonable and impractical. *Id*. at 34.

Concord's arguments lack merit. It is well established that permit writers enjoy broad authority under the CWA and regulations to prescribe municipal data collection and reporting requirements. *See* CWA § 308(a)(A), 33 U.S.C. § 1318(a)(A) (specifying that permittees must provide records, reports, and other information EPA reasonably requires); CWA § 402(a)(2), 33 U.S.C. § 1342(a)(2) (requiring permittees to provide data and other information EPA deems appropriate); 40 C.F.R. § 122.41(h) (permittees shall furnish "any information" needed to determine permit compliance); 40 C.F.R. § 122.44(i) (permittees must supply monitoring data and other measurements as appropriate); *see also*, *e.g.*, *In re City of Moscow*, 10 E.A.D. 135, 170-71 (EAB 2001) (holding that EPA has "broad authority" to impose information-gathering requirements on permittees); *In re Town of Ashland Wastewater Treatment Facility*, 9 E.A.D. 661, 671-72 (EAB 2001) (holding that CWA confers "broad authority" on permit issuers to require monitoring and information from permittees). The mapping, O&M planning, and annual reporting requirements readily fall within the bounds of these broad provisions, and Concord has not provided any basis for the Board to hold otherwise.

The Region also provided an adequate response to Concord's general comments that the collection system requirements are burdensome and unnecessary. The Region explained its view that the implementation costs and requirements are reasonable, that some flexibility exists for their implementation, that they are being incorporated as standard conditions in many municipal permits, and that the information collected is needed to protect human health and the environment. *See* RTC resp. A9, at 13-14. Concord has not persuasively rebutted any of these points on appeal with data or other evidence establishing a contrary position; thus, the Board finds no basis for a remand on this ground.

Finally, Concord raises some additional arguments pertaining to new monitoring and reporting requirements for phosphorus removal chemical usage. Pet. at 36-37. As the Region notes, these matters were not raised during the

comment period, although they could have been. *See* Resp. at 40. Thus, they are not preserved for review by the Board. 40 C.F.R. § 124.19(a)(4)(ii).

Accordingly, the Board denies review of the collection system requirements.

VI. *CONCLUSION AND ORDER*

For the foregoing reasons, the Board remands the effluent limits for aluminum and pH to the Region for additional explanation regarding the bases for changing the 7Q10 flow value and the minimum pH limit between the draft and the final permits. On remand, the Region, to the extent consistent with 40 C.F.R. §§ 124.14 and 124.17, may decide to exercise its discretion to revise its response to comments to provide such additional explanation without reopening the comment period. It is not precluded, however, from seeking additional public comment on these limits. The Board denies the petition for review on all other issues.

Any party who participates in the remand process and is not satisfied with the Region's decision on remand may file an administrative appeal with the Board pursuant to 40 C.F.R. § 124.19(a). Any such appeal must be limited to the issues of the 7Q10 flow value and the pH limit. Moreover, an appeal of the Region's decision on remand is required to exhaust agency review procedures under 40 C.F.R. § 124.19(*l*).

So ordered.