

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

<hr/>)	
CENTER FOR REGULATORY))	
REASONABLENESS,))	
))	
Plaintiff,))	
))	
v.))	
))	Case No. 16-cv-1435
U.S. ENVIRONMENTAL PROTECTION))	
AGENCY, and U.S. ENVIRONMENTAL))	Hon. Richard J. Leon
PROTECTION AGENCY REGION V,))	
))	
Defendants,))	
))	
MINNESOTA POLLUTION CONTROL))	
AGENCY, and MINNESOTA CENTER FOR))	
ENVIRONMENTAL ADVOCACY,))	
))	
Defendant-Intervenors.))	
<hr/>)	

**DEFENDANTS’ REPLY BRIEF IN SUPPORT OF THEIR
CROSS MOTION FOR SUMMARY JUDGMENT**

This litigation concerns the Environmental Protection Agency’s (“EPA”) approval and reconsideration of the State of Minnesota’s multi-indicator water quality criteria in which levels of total phosphorus—a pollutant that has been known for decades to cause eutrophication—and BOD₅ or diel DO flux are inextricably linked.¹ As EPA explained in its approval of those criteria (“Approval”), its resolution of CRR’s petition for reconsideration (“Reconsideration”), and its opening brief (“EPA Br.”), no level of BOD₅, diel DO flux (“DO flux”), or total

¹ As explained in EPA’s opening brief, diel DO flux is the amount of change in dissolved oxygen levels in water over the course of one day, and BOD₅ is the amount of dissolved oxygen that must be removed from a sample of water over five days to break down the organic matter (e.g., dead plants and algae) in the sample. See EPA’s Combined Memorandum Supporting/Opposing Summary Judgment, Dkt No. 43 (“EPA Br.”) at 2-3 & n.3.

phosphorus, by itself, can violate Minnesota's eutrophication criteria. Instead, under the multi-indicator criteria at issue (Total Phosphorus+BOD₅ and Total Phosphorus+diel DO flux), violations only occur when waters have *both* a total phosphorus level high enough to cause eutrophication *and* a BOD₅ or DO flux level high enough to indicate that eutrophication likely is occurring. As Minnesota and EPA have always acknowledged, none of those components in isolation directly harms aquatic life, and any one of them could be elevated when eutrophication is not occurring. The data that Minnesota collected and the analyses that it performed consistent with EPA's 2010 Stressor-Response Guidance established, however, that eutrophication is likely to occur in Minnesota rivers and streams when total phosphorus and BOD₅ or DO flux reach the levels specified in the challenged multi-indicator criteria.²

CRR, however, bases most of its arguments on the false premise that BOD₅ and DO flux are stand-alone criteria. From this false premise, CRR argues that (1) Minnesota was required to prove that BOD₅ and DO flux levels, individually and in isolation, can be directly tied to harm to aquatic life, and (2) Minnesota was further required to identify threshold values for both BOD₅ and DO flux at which that harm begins to occur. Because no stand-alone criteria are at issue, and because Minnesota's multi-indicator criteria *were* based on scientifically-established cause-and-effect relationships between specific levels of phosphorous, eutrophication, aquatic life harm, and BOD₅ and DO flux, the arguments in CRR's reply brief (Dkt No. 47) ("CRR Reply") lack merit.

² In other words, the DO flux and BOD₅ components are not included in Minnesota's criteria to prevent harm caused by DO flux and BOD₅. They are included as a safeguard to prevent determinations that there are violations of the eutrophication standards when phosphorus levels are high, but eutrophication likely is not occurring. Hence, they address the "violation without a problem" concern that CRR raises at CRR Reply 20-21. *See also* Minnesota's Opposition to Plaintiff's Motion for Summary Judgment (Dkt No. 41) ("Minnesota's Opp."), at 24.

In what little is left of its Reply, CRR fails to rebut EPA's demonstration that the Agency used the factors mandated by CWA Section 303(c)'s implementing regulation, 40 C.F.R. § 131.21(b), to evaluate and approve the challenged criteria. CRR also does not dispute that EPA clearly identified the record information it considered and articulated a clear connection between that information and the conclusions it reached, although CRR disagrees with those conclusions. Moreover, CRR fails to rebut EPA's demonstration that Minnesota's eutrophication standards already account for confounding factors and that the State properly identified ecoregions consistent with the 2010 Stressor-Response Guidance. Finally, CRR fails to rebut EPA's explanation that Minnesota properly relied upon BOD₅ testing when establishing the challenged criteria.

For all of these reasons, as well as those explained in EPA's opening brief, the Court should grant EPA's cross-motion for summary judgment and deny CRR's motion for summary judgment.

I. THE APPROVAL AND RECONSIDERATION SHOULD BE UPHELD BECAUSE EPA REASONABLY FOUND THAT MINNESOTA'S SUBMITTAL FULFILLED THE REQUIREMENTS OF 40 C.F.R. §§ 131.5, 131.6 and 131.21(b).

EPA's opening brief at pages 18-19 and 22-28 describes the Agency's compliance³ with the relevant portions of 40 C.F.R. § 131.21(b), the controlling CWA regulation that specifies the criteria EPA must use to approve or disapprove state water quality standards such as those at issue in this case:

³ The CRR references in EPA's opening brief are pinpoint citations to documents in EPA's administrative record. Where those citations span multiple pages of record documents, those pages contain the relevant portions of EPA's extensive and detailed explanations or supporting materials.

§ 131.21 EPA review and approval of water quality standards.

...

(b) the Regional Administrator's approval or disapproval of a State water quality standard *shall be* based on the requirements of the Act as described in §§ 131.5 and 131.6 . . .

40 C.F.R. § 131.21(b) (emphasis added); *see* 60 Fed. Reg. 15,366, 15,387 (Mar. 23, 1995).

Contrary to the allegations at CRR Opp. pages 7-9, those regulations do not list items that EPA can simply check off in a conclusory fashion. Instead, they enumerate substantive requirements that EPA can only deem satisfied or unsatisfied based upon a careful evaluation of the standards for which a State is seeking approval and their supporting record. For example, 40 C.F.R. § 131.5(a)(2) requires EPA to determine “[w]hether the State has adopted criteria . . . based on sound scientific rationale consistent with § 131.11,” while 40 C.F.R. § 131.5(a)(6) requires EPA to determine “[w]hether the State has followed applicable legal procedures for revising or adopting standards.” Similarly, 40 C.F.R. § 131.6(b) requires EPA to determine whether the methods used and analyses conducted support the standards for which approval is being sought, while 40 C.F.R. § 131.6(c) requires EPA to determine whether the standards include criteria that are sufficient to protect the designated uses for regulated waters.

EPA made the required substantive, record-based determination to approve the challenged criteria under 40 C.F.R. §§ 131.5, 131.6 and 131.21(b). As described in the Approval, the Reconsideration and EPA's opening brief, EPA exhaustively reviewed the voluminous scientific data, methodology and analyses that Minnesota submitted. *See e.g.*, CRR-15861-95 (Approval), 16032-36 (Reconsideration); EPA Br. at 22-28. EPA clearly explained in the Approval and Reconsideration the bases for its determination that Minnesota developed the

challenged criteria in a manner consistent with the 2010 Stressor-Response Guidance,⁴ which EPA issued for the express purpose of providing a sound scientific rationale for developing water quality standards for nutrient pollutants—precisely the kind of criteria at issue in this case. *See* CRR-15867. EPA also detailed in the Reconsideration the record bases for its responses to the issues that CRR raised in its administrative petition, including Minnesota’s success in addressing potentially confounding factors, ecoregions, and BOD₅ testing.

CRR errs to the extent that it argues that the Court should reach beyond EPA’s articulated bases for the Approval and Reconsideration, and independently examine (and second-guess) the data that Minnesota used and the analyses that it performed consistent with the Stressor-Response Guidance.⁵ The scope of the Court’s inquiry in this case is not whether the Court believes that Minnesota should have conducted different or additional analyses, or whether the State should have reached different conclusions.⁶ Instead, the Court’s inquiry is limited to whether EPA considered the proper factors (*i.e.*, those mandated by 40 C.F.R. 131.21(b)) when reviewing Minnesota’s submittal, and articulated a reasonable connection between the

⁴ Contrary CRR’s allegations at CRR Reply 32 and nn.38-39, EPA’s Stressor-Response Guidance has not been modified since it was finalized in 2010, and it does not reject changepoint analyses. The State of Minnesota also speaks directly to the use of changepoint analyses in development of its multi-indicator standards at page 18 & n.11 of its Opposition to Plaintiff’s Motion for Summary Judgment (Dkt No. 41) (“Minnesota Opp.”).

⁵ CRR already had its day in Court with respect to these State issues, as it previously (and unsuccessfully) challenged the criteria at issue and Minnesota’s bases for establishing them in administrative proceedings before the Minnesota Pollution Control Agency and in the State Courts. *See* Minnesota’s Opp. 11-12.

⁶ For example, CRR Reply 25 clearly asks the Court to make its own independent judgment about the scientific efficacy of the standards, instead of assessing whether EPA articulated a reasonable connection between the information it considered and its determination that Minnesota’s standards and submittal fulfill the requirements of 40 C.F.R. §§ 131.5, 131.6 and 131.21(b).

administrative record and the conclusions it reached in the Approval and Reconsideration—which, as detailed above, EPA did. Most of the cases that CRR cites in its Reply at pages 4-6 do not hold to the contrary, and the remainder address very different situations in which EPA itself performed *de novo* data analyses and analyzed scientific information to develop federal rules, regulations and permits.⁷

In sum, CRR does not dispute that EPA based the Approval on a determination that the Minnesota water quality criteria at issue satisfied the applicable requirements in 40 C.F.R. §§ 131.5 and 131.6. Further, CRR does not dispute that EPA clearly articulated the basis for that determination in the Approval and Reconsideration, including detailed 35- and 13-page single-spaced explanations, respectively, of the voluminous and highly technical record information EPA considered and the substantive evaluations that EPA performed. CRR-15861-95 (Approval), 16032-44 Reconsideration); *see also* EPA Br. at 18-19, 23-27, 35-36, 38-39; *see e.g.*, EPA Br. at 10-17. Because the agency actions before the Court are EPA’s Approval and Reconsideration (not Minnesota’s criteria or their development), and because the detailed explanations in the Approval and Reconsideration establish that EPA’s decision making in this technical area that lies solidly within its special expertise was neither arbitrary nor capricious, the Court should grant EPA’s cross-motion for summary judgment and uphold the Approval and Reconsideration. *See Motor Vehicle Mfrs. Ass’n of U.S., Inc. v State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (“*State Farm*”); *Baltimore Gas & Elec. v. NRDC*, 462 U.S. 87, 103

⁷ *See Genuine Parts Co. v. EPA*, 890 F.3d 304 (D.C. Cir. 2018) (challenge to EPA determination to place property on the National Priorities List); *Masias v. EPA*, 906 F.3d 1069 (D.C. Cir. 2018) (challenge to EPA determination that it had insufficient information to designate areas under the Clean Air Act); *Greater Boston Television Corp. v. FCC*, 444 F.2d 841 (D.C. Cir. 1970) (challenge to FCC license approval); *Young v. GSA*, 99 F. Supp.2d 59 (D.D.C. 2000) (challenge to GSA environmental impact statement); *Midtec Paper Corp. v. United States*, 857 F.2d 1487 (D.C. Cir. 1988) (challenge to ICC denial of competitive access order request).

(1983) (“*BG&E*”); *see also Friends of the Capital Crescent Trail v. Fed. Transit Admin.*, 255 F. Supp.3d 60, 65 (D.D.C.) *aff’d*, 877 F.3d 1051 (D.C. Cir. 2017); *see e.g.*, EPA Br. at 20-21.

II. ARGUMENTS BASED ON MATERIALS OUTSIDE THE ADMINISTRATIVE RECORD ARE NOT PROPERLY BEFORE THE COURT.

Most of the arguments in CRR’s Reply Brief (including nearly all of CRR Reply ___ - ___) are not properly before the Court,⁸ because they are not based on information from the certified administrative record. Instead, they are based on purported “facts” and “admissions” that are instead snippets from EPA’s Answer and statements that CRR made without supporting record citations in earlier briefs.

CRR is mistaken when it claims that EPA was obligated to specifically and individually deny each such alleged fact or assertion, and that EPA made numerous admissions for purposes of summary judgment by failing to do so. It is black letter law that agency decisions such as the Approval and Reconsideration stand or fall on their administrative record—not a new record created in the district court—and “the sole ‘function of the district court is to determine whether or not as a matter of law the evidence in the administrative record permitted the agency to make the decision it did.’” *See Friends of the Capital Crescent Trail*, 255 F. Supp.3d at 65 (quoting *Sierra Club v. Mainella*, 459 F. Supp.2d 76, 90 (D.D.C. 2006) and *Rempfer v. Sharfstein*, 583 F.3d 860, 865 (D.C. Cir. 2009)); *Camp v. Pitts*, 411 U.S. 138, 142 (1973); *Chem Mfrs Ass’n v. EPA*, 28 F.3d 1259, 1263 (D.C. Cir. 1994); *see also Am. Bioscience, Inc. v. Thompson*, 269 F.3d 1077, 1083-84 (D.C. Cir 2001) (citing *Univ. Med. Ctr of S. Nevada v. Shalala*, 173 F.3d 438, 440 n.3 (D.C. Cir. 1999) (whether an agency acted arbitrarily or capriciously is a legal question resolved on the record) and *James Madison Ltd. v. Ludwig*, 82 F.3d 1085, 1096 (D.C. Cir. 1996),

⁸ *See, e.g.*, the bulleted lists at CRR Reply 18-19 and 26-27; argument at CRR Reply 17-23, 26-29 and 33-34; and CRR Reply nn.22, 24, 26-27 and 37.

(district courts essentially sit as appellate tribunals when reviewing agency decisions under the Administrative Procedure Act)); *see also* EPA Br. at 20-21 (Standard of Review).⁹ EPA therefore need only point out that such alleged facts and admissions are not properly before the Court (as it did, and continues to do), and then present its claims and defenses based on the administrative record and applicable law.

In this case, the Court's inquiry is limited to determining whether the administrative record demonstrates that EPA considered the proper factors (*i.e.*, those mandated by 40 C.F.R. § 131.21(b)), and articulated a reasonable connection between the information the Agency considered and the conclusions it reached in the Approval and Reconsideration. EPA's Answer is not part of that record. Allowing CRR to assert arguments based on alleged "admissions" from EPA's Answer and unsupported statements by CRR in earlier briefs would allow CRR to litigate based on artful pleading and hearsay instead of the administrative record.

Moreover, many of the alleged admissions and prior CRR statements are erroneous or misleading. EPA's Answer was constrained by the particular wording chosen by CRR in its Complaint—the statements to which EPA responded are CRR's framing of the issues, not statements that the Agency itself would have made with respect to the criteria at issue.¹⁰ Moreover, many of the statements in CRR's earlier briefs are not supported by citations to the administrative record, and also are erroneous for the reasons EPA explained in the Approval, the

⁹ The *Palateria La Michoacana, Inc. v. Productos Lacteos Tocumbo S.A. De C.V.* case cited at CRR Reply 18 does not instruct otherwise. 69 F. Supp.3d 175 (D.D.C. 2014). That case involved a trademark dispute between private parties, not the review of a federal agency action under the Administrative Procedure Act.

¹⁰ EPA's response to CRR's FOIA request poses the same problem, although as an attachment to CRR's letter seeking reconsideration, it is part of the administrative record.

Reconsideration, and its opening brief. The numerous alleged admissions and prior CRR statements regarding direct causation of harm also are irrelevant for the reasons explained *infra* at 10-13 and in EPA's opening brief at pages 14-17, 33, 34-35. For all of these reasons, the arguments based on the alleged admissions and prior unsupported statements in CRR's earlier filings should be rejected *ab initio*.

III. CRR STILL FAILS TO SHOW THAT EPA'S APPROVAL AND RECONSIDERATION WERE ARBITRARY, CAPRICIOUS, OR CONTRARY TO LAW.

As discussed in preceding sections, CRR misunderstands governing law and relies on non-record materials. Not only for those reasons, but also as set forth in EPA's opening brief and detailed below, they have failed to establish that EPA based the Approval or Reconsideration on arbitrary or capricious findings.

A. Both BOD and DO are Recognized Eutrophication Parameters in CWA Regulations, Guidance and Scientific Literature.

CRR's arguments fail to the extent they allege that there is no scientific basis for using DO flux and BOD₅ as elements of Minnesota's eutrophication criteria. CRR Opp. at 5, 9 19-24, 26-31. DO flux and BOD₅ each are one of numerous possible measures of DO and BOD, respectively (much like an inch is one of many possible measures of length), and both DO and BOD are listed in Table 3-1 of the 2010 Stressor-Response Guidance as potential variables for eutrophication standards. CRR-13607 Table 3-1; *see e.g.*, 40 C.F.R. Part 132, Table 5. The Stressor-Response Guidance specifically discusses the means by which eutrophication-driven changes in dissolved oxygen levels harm aquatic life (*see e.g.*, CRR-13597, 13600, 13602-03), and the conceptual model for streams in the Stressor-Response Guidance directly links changes in dissolved oxygen levels to aquatic life harm. CRR-13602, 13603 Table 2-2. CRR's

arguments therefore should be rejected to the extent they are based on allegations that there is no scientific basis for using DO flux or BOD₅ as elements of eutrophication standards.

B. The Standards that EPA Approved Are Based on Cause-and-Effect Relationships between Phosphorus and Aquatic Life Harm.

CRR's attempt to repackage arguments based on the false premise that BOD₅ and DO flux must themselves directly harm aquatic life in order to be components of Minnesota's multi-indicator criteria fail on the merits for the same reasons that EPA explained in its opening brief. In its Reply, CRR alleges that the CWA and its implementing regulations require such a cause-and-effect relationship for each element of state water quality criteria, and that Minnesota's criteria are defective because they do not reflect such a relationship. *See* CRR Reply 9-17, 19-24, 26-28, 30-31, 40-41. Both of these allegations are incorrect.

First, EPA clearly summarized in the Reconsideration its prior explanations of why direct pollutant-harm relationships do not exist, and so cannot be used to establish criteria for nutrient pollutants (as opposed to toxic pollutants), in response to the same direct-causation arguments that CRR raises in this case:

[W]ater quality criteria for nutrients are unlike water quality criteria commonly adopted for pollutants that are directly toxic to aquatic organisms. Criteria for pollutants that are directly toxic are based on data generated by exposing test organisms to a known series of concentrations of the pollutant in a laboratory environment and determining the concentration that causes a toxic response within specified periods of time.

Unlike pollutants that are directly toxic, nutrients impact aquatic organisms indirectly. . . . [The addition of excess nutrients to aquatic systems causes increased growth of aquatic algae and plants and changes in the species that are present. The impact of these changes then cascades through the entire community of organisms, including . . . increased . . . daily fluctuations in dissolved oxygen [DO flux]. . . ; [and]. . . Oxygen levels less than those necessary to support aquatic organisms when . . . algal cells die and decay [BOD₅], resulting in conditions that are toxic to aquatic life. . . .

As a result of the indirect manner in which excess nutrients cause adverse effects on aquatic life, the approach used for deriving criteria for toxic pollutants (measuring the exposure that directly causes an adverse impact on exposed

aquatic organisms in a laboratory and expressing the criteria as a pollutant concentration magnitude and duration) does not work for nutrients.

CRR-16033-34. For these reasons, which were established by the decades of peer-reviewed scientific research on which the Stressor-Response Guidance was based, and explained in the Stressor-Response Guidance, the Approval and Reconsideration, CRR's direct causation and threshold arguments simply lack merit and should be rejected.

Second, as EPA has repeatedly and consistently explained, Minnesota's criteria *are* based upon the well-documented cause-and-effect relationships between phosphorus, eutrophication and harm to aquatic life. See EPA Br. at 8; *see also id.* The stressor-response relationships discussed in footnotes 30-31 of CRR's Reply are statistically significant relationships between phosphorous, eutrophication (as reflected in elevated chlorophyll levels, among other things), BOD₅ and DO flux, and aquatic life measures. Such relationships are the scientific basis for water quality standards developed pursuant to the Stressor-Response Guidance, not "guesswork" as alleged at CRR Reply n.31. As EPA explained in the Reconsideration at CRR-16036 (emphasis in original):

MPCA based its combined criteria on extensive water quality monitoring data on [Total Phosphorus] and each of the threshold indicators of nutrient uptake for water bodies throughout Minnesota; extensive biomonitoring data (data on numbers of different types of fish and invertebrates) for those water bodies; and multiple statistical analyses. Those statistical analyses showed that water bodies with both elevated BOD₅ *and* [Total Phosphorus] tended to exhibit aquatic life impacts consistent with nutrient pollution as predicted by the conceptual model. Similarly, water bodies with both elevated diel DO flux *and* [Total Phosphorus] tended to exhibit aquatic life impacts consistent with nutrient pollution as predicted by the conceptual model.

While the scientific literature, the Stressor-Response Guidance, and the Approval all acknowledge that high phosphorus levels do not always lead to eutrophication, eutrophication (among other things) leads to high BOD₅ and DO flux in affected waters. Consistent with this

well-established principle, under Minnesota’s multi-indicator Total Phosphorus+BOD₅ and Total Phosphorus+DO flux criteria waters will not violate the eutrophication standards unless they contain *both* total phosphorus concentrations high enough to cause eutrophication *and* BOD₅ or DO flux values high enough to establish that eutrophication likely is occurring. EPA stated this clearly in the Reconsideration:

Minnesota’s criteria are expressed as “combined criteria,” meaning the criteria include numeric thresholds for both the stressor (in this case, total phosphorus) and the indicators of biological condition, or response (in Minnesota’s case, chlorophyll α , diel dissolved oxygen flux, BOD₅, and pH) that must both (total phosphorus and at least one response indicator) be exceeded for the criteria to be considered not attained. . . . The stressor component is the particular nutrient (phosphorus or nitrogen) that, at high enough concentrations, can adversely impact aquatic life. The response component is a parameter or parameters that can be used to monitor whether the high concentrations of the particular nutrient at issue are in fact resulting in a biological response in a particular water body to such an extent that the cascading effect described above would likely occur.

CRR-16034.

Third, while the CWA’s implementing regulations require a sound scientific rationale for state water quality criteria (40 C.F.R. § 131.11(a)), neither the CWA nor its implementing regulations require a direct cause-and-effect relationship between each criterion (much less each component of multi-indicator criteria) and harm to the designated use (*e.g.*, aquatic life) beyond ensuring that the designated use is protected when the criterion is met. Neither does the Stressor-Response Guidance, which expressly provides a scientifically defensible basis for developing the kind of eutrophication standards at issue. States therefore are not required to establish “threshold” concentrations above which every component of water quality criteria—particularly multi-indicator criteria—directly harm aquatic life.¹¹

¹¹ CRR misreads EPA’s Stressor-Response Guidance to the extent it believes that a threshold is always required. Moreover, the text quoted at CRR Reply 12 is inapposite to this case, because Minnesota did not use the conditional probability approach with which that quotation is

CRR’s contrary arguments are not supported by the statutory or regulation citations provided. The regulations that CRR cites at CRR Reply 13 n.9, 40 C.F.R. §§ 131.2 and 131.3(c), nowhere require, much less mention, the concept of impairment thresholds. Moreover, Section 131.3(c) is inapposite to this case. As discussed at EPA Br. 24 n.16, that regulation addresses section 304(a) criteria developed pursuant to 304(a) Guidance materials. No such criteria are at issue in this case. In addition, CRR’s citations to Guiding Principles are red herrings. As EPA explained in its opening brief, the Stressor-Response Guidance and Guiding Principles are two of three equally-acceptable alternative methods for developing nutrient criteria like the ones at issue. EPA Br. 10 & n.8. Because Minnesota developed its criteria consistent with the Stressor-Response Guidance, the Guiding Principles publication and related arguments are not relevant to this case.¹²

C. States Are Not Limited to Establishing Criteria That Are Strictly Necessary to Protect Designated Uses.”

Contrary to CRR Reply 10-11, States are not restricted to establishing—and EPA is not limited to approving and enforcing—only criteria that are “necessary” to protect designated uses. As EPA explained in its opening brief at 4-6 and 28-33, the stated purpose of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters” by reducing and eventually eliminating the discharge of pollutants into those waters, 33 U.S.C. § 1251(a). States have the primary responsibility and right “to prevent, reduce, and eliminate

associated. *See* CRR-319 (entry for Page 7-11); *see e.g.*, Minnesota Opp. 6. EPA also notes that CRR’s insertion of the word “impairment” into the Guiding Principles quotation at CRR Reply 12 is inaccurate

¹² CRR also alleges at CRR Reply 13 & nn.10-11 that EPA’s brief misrepresented portions of the Guiding Principles and the Stressor-Response Guidances. To the contrary, the materials were accurately represented in EPA’s opening brief, and CRR’s arguments lack merit.

pollution, [and] to plan the development and use (including restoration . . . and enhancement) of . . . water resources.” *Id.* § 1251(b). Moreover, States are expressly authorized to develop water quality standards more stringent than required by the Act.¹³ 40 C.F.R. § 131.4(a); *see* 33 U.S.C. § 1370; 56 Fed. Reg. 64,876, 64,886-87 (Dec. 12, 1991). These provisions, and the CWA’s implementing regulations for the development and approval of State water quality standards, directly contradict CRR’s arguments that States cannot establish water quality criteria unless they are strictly necessary to protect designated uses.¹⁴

Moreover, CRR’s speculation at CRR Reply n.6 that criteria might not be approvable or federally enforceable if they are more stringent than “necessary,” based on a regulation that is wholly inapplicable to the development or approval of state water quality standards, lacks merit.¹⁵ First, the CWA and its implementing regulation expressly authorize States to issue standards that are more stringent than required under the Act. 40 C.F.R. § 131.4(a); *see* 33 U.S.C. § 1370; 56 Fed. Reg. at 64,886-87.

Second, CRR’s argument is not supported by the regulation it cites, 40 C.F.R. § 123.1(i). Criteria are established and approved pursuant to Section 303 of the CWA, as implemented by

¹³ Contrary to CRR’s allegations at CRR Reply 10 n.6, EPA has not made any representations regarding whether Minnesota’s criteria are strictly necessary to protect aquatic life uses. Instead, at EPA Br. 29 n.20, EPA merely noted that Minnesota does not claim that the standards at issue are more stringent than required under the Act, and that EPA has not made a contrary finding.

¹⁴ Contrary to CRR’s allegations at CRR Reply 10 and 16, 40 C.F.R. 131.2 does not anywhere use the term “necessary,” or imply that criteria are only valid if they are strictly necessary to protect designated uses. Neither does the definition of “criteria” in 40 C.F.R. § 131.3(b).

¹⁵ CRR’s references to the Interstate Commerce Clause at CRR Reply 11 also lacks merit. The only issue before the Court in this case is whether EPA acted arbitrarily or capriciously when it approved the criteria at issue based on the factors mandated in 40 C.F.R. §§ 131.21(b), 131.5 and 131.6. A Commerce Clause inquiry is not one of those factors, and CRR does not argue otherwise.

40 C.F.R. Part 131. In contrast, Section 123.1 pertains to state administration of the CWA’s permit program for discharges that otherwise would be unlawful—the National Pollutant Discharge Elimination System (“NPDES”). 40 C.F.R. § 123.1(a); *see* 33 U.S.C. § 1311(a). That regulation and others in 40 C.F.R. Part 123 “are promulgated under the authority of sections 304(i), 101(e), 405 and 518(e) of the CWA, and implement the requirements of *those* sections.” 40 C.F.R. § 123.1(b) (emphasis added). As EPA explained in its opening brief, the development and approval of water quality standards is separate and distinct from the NPDES program and process, and NPDES-related regulations like the one cited by CRR are inapposite to this case. EPA Br. at 7-8, 30-31, n.22.

D. Arguments Based on 304(a) Guidance Are Red Herrings.

CRR’s various allegations and arguments based on 304(a) guidance documents and related regulations at Op. Br. 12-16 lack merit and should be rejected. As EPA explained in its opening brief at footnote 16, CWA Section 304(a) guidance materials are inapposite to this case. CWA implementing regulation 40 C.F.R. § 131.11(b)(1) requires States to use *either* 304(a) Guidance *or* “Other scientifically defensible methods” to establish numeric criteria for water quality standards. In this case, Minnesota followed a process consistent with the Stressor-Response Guidance, which is an “Other scientifically defensible method” that satisfies 40 C.F.R. § 131.11(b)(1)(iii). CRR-13592.

E. EPA Reasonably Approved Minnesota’s Use of BOD₅ Test Data.

EPA clearly explained in the Reconsideration at CRR-16037-39 why it approved Minnesota’s BOD₅ testing and use of the resulting data to develop the challenged Total Phosphorus+BOD₅ criteria. *See* EPA Br. 37-39. CRR fails to rebut that explanations in its Reply at pages 28-31.

The majority of CRR's argument is based on citations to non-record pleadings and argument in CRR's prior brief that is not supported by citations to the administrative record. That portion must be disregarded for the reasons discussed *supra* at 7-9 and EPA Br. nn.1, 7.¹⁶ The remainder essentially repeats previous arguments to which EPA responded at EPA Br. 37-39, and reflects a combination of misunderstanding of, and disagreement with, various facets of the Agency's prior response.¹⁷ CRR therefore fails to establish that EPA's approval of the BOD₅ testing or criteria was arbitrary or capricious.

IV. EPA STANDS BY THE ARGUMENTS AND RECORD CITATIONS PRESENTED IN ITS OPENING BRIEF.

CRR's contention that certain statements in EPA's brief were unfounded or misleading (*see* CRR Opp. at 36-41) is itself entirely unsupported. As explained below, the statements CRR identifies are accurate and based upon scientific analyses and findings in the Approval, Reconsideration and underlying record documents.

¹⁶ For example, contrary to CRR Reply 29, EPA expressly found that "[Minnesota's] extensive water quality and biological monitoring and statistical analyses showed that, when [total phosphorus] and BOD₅ are found in water bodies at elevated levels, aquatic life are adversely affected." CRR-16037. Contrary to CRR Reply n.28, Minnesota addressed CRR's concerns regarding sampling through state implementation guidance. *See* Minnesota Opp. at 23 & n.12; *see e.g.*, EPA Br. n.22.

¹⁷ In particular, CRR revisits its prior, unsupported assertion that the private Standard Methods organization is an EPA expert with respect to the development of nutrient water quality standards. *See* CRR Reply 28-30. As EPA explained in its opening brief, Standard Methods does possess expertise with respect to the BOD₅ testing method. EPA Br. 38. Unlike EPA, that organization does not, however, possess expertise regarding the development of nutrient water quality standards, including whether and how the results of BOD₅ testing should be used for that particular purpose. *Id.* Moreover, resolving conflicting technical opinions regarding the information used to establish nutrient criteria falls squarely within EPA's special expertise, and just as squarely outside the role of a court reviewing an agency decision under the APA. *See Isaac Walton League of Am. v. Marsh*, 655 F.2d 346, 372 (D.C. Cir. 1981).

A. The Conceptual Models Developed by Minnesota and the Stressor-Response Guidance Include DO and BOD as Variables Related to Aquatic Life Harm.

CRR claims that, contrary to statements in EPA’s opening brief, Minnesota’s conceptual model does not include BOD and DO Flux. CRR Opp. at 36-38; *compare* EPA Br. at 36-37. Examination of the relevant documents demonstrates, however, that both DO flux and BOD¹⁸ are included as variables related to aquatic life harm in the conceptual models used by Minnesota and the Stressor-Response Guidance. CRR-5786-87 & Figs. 1 & 2, 15869-71 & Figs. IV.1 & IV.2 (cited and depicted in EPA Br. 13-14, 35).

Minnesota’s conceptual model for eutrophication in rivers includes both increased DO flux (“↑ DO Flux”) and increased BOD (“↑ BOD”). CRR-5786 Fig. 1, 5787 Fig. 2. CRR itself highlights them in red on page 37 of its Reply. When one follows the arrows in each model, one finds those variables leading to the adverse aquatic life impacts listed inside the dashed box at the bottom (*e.g.*, reductions in sensitive species) and the overall outcome of “↓ Biological Condition.” The Stressor-Response Guidance’s conceptual model also includes DO flux (“Δ dissolved oxygen”) ¹⁹ and BOD as “↑ Respiration” which the associated text explains represents the consumption of oxygen by biological processes (*i.e.*, biological oxygen demand) in eutrophying waters. CRR-13599, 13602-03 & Fig. 2-2, 15869-70 & Fig. IV.1. The arrows in this model also show those variables affecting “aquatic life use.” Consequently, EPA’s statements regarding the conceptual models are supported at the record pages cited in EPA’s opening brief.

¹⁸ As noted *supra* at 9, BOD₅ is one of many possible measures of BOD, much like an inch is one of many possible measures of length.

¹⁹ The Greek symbol delta (“Δ”) is commonly used in mathematical and scientific notation to indicate change or fluctuation.

B. Site-Specific (or Confounding) Factors Were Addressed by the Scientific Process That Minnesota Used to Develop Its Eutrophication Standards.

CRR's arguments regarding site-specific or confounding factors²⁰ also lacks merit. Contrary to CRR's allegations at CRR Reply 25-26, criteria do not need to be separately "adjusted" for confounding factors. CRR-16043-44 ("Nothing in the [Stressor-Response] Guidance suggests that this can only be achieved through a separate "confounding factor analysis.")). Instead, as Minnesota did in this case, States address confounding factors in their conceptual model at Step 1 of the Stressor-Response Guidance process, and when performing the analyses at Steps 2-4 that ultimately produce the standards. CRR-16043 ("[T]he [Stressor-Response] Guidance recommendation is only that confounding factors be considered in the development of nutrient criteria, which is exactly what [Minnesota] did."); *see* EPA Br. at 15, 35-37; CRR-16035 (Minnesota's combined criteria approach based on "empirically-derived stressor-response relationships . . . accounts for many of the site-specific factors that might otherwise be of concern"), 16036 ("[Minnesota] further accounted for site-specific factors by dividing the state into three different ecoregions"), 16042-44. *See also* Minnesota Opp. at 16-20 (addressing the State's extensive confounding factor analyses). Hence, the criteria at issue accounted for confounding factors, and do not need any separate adjustment.

Because CRR raises here essentially the same confounding factor arguments raised in its letter seeking reconsideration of the Approval, the challenged Reconsideration directly addresses

²⁰ CRR coined the term "confounding" factors in its letter seeking reconsideration of the Approval. The peer-reviewed scientific literature, the Stressor-Response Guidance, Minnesota's record documents and the Approval all refer to them as "site-specific" factors. CRR-16036 ("Minnesota accounted for site-specific factors (identified in the letter from CRR as 'confounding' factors)"). Contrary to CRR Reply 24-25 & n. 28, the State plainly considered site-specific factors.

them. *See* CRR-16036, 16042-44. And as explained in the Reconsideration and EPA's opening brief, Minnesota performed the analyses that the Stressor-Response Guidance established would identify and account for confounding factors:

[Minnesota] accounted for the site-specific factors (identified in the letter from CRR as "confounding" factors) by adopting combined criteria, with stressor and response components that both must be exceeded before a water body is deemed to be not meeting the water quality standard. [Minnesota] further accounted for site-specific factors by dividing the state into three different ecoregions for purposes of the eutrophication standards.

CRR-16036; *see* CRR-16042-44; *see also* Minnesota Opp. at 16-20.

C. EPA Has Never Argued That DO Flux or BOD₅ Directly Impact Aquatic Life or Are Always Indicative of Eutrophication.

CRR's arguments at CRR Reply 40-41 are essentially restatements of CRR's misunderstandings regarding the multi-indicator nature of Minnesota's Total Phosphorus+BOD₅ and Total Phosphorus+DO flux eutrophication criteria, and the reason why DO flux and BOD₅ are not stand-alone water quality criteria. EPA has never claimed, in the Approval, the Reconsideration or its opening brief, that BOD₅ and DO flux are always indicative of eutrophication, or that they directly cause harm to aquatic life. To the contrary. EPA (and Minnesota before then) has stated consistently throughout that BOD₅ and DO flux are not stand-alone criteria *because* they do not directly harm aquatic life and because they can be affected by conditions other than phosphorus-driven eutrophication. Hence, Minnesota developed, and EPA approved, multi-indicator criteria under which no amount of BOD₅ or DO flux, by itself, can ever violate Minnesota's eutrophication standards. Instead, violations can only occur in waters that contain *both* total phosphorus levels that are high enough to cause eutrophication *and* BOD₅ or DO flux levels that are high enough to indicate that eutrophication likely is occurring. All of the EPA statements quoted at CRR Reply 40-41 reflect this consistent position.

D. EPA Reasonably Approved Minnesota's Ecoregions

CRR's restated objections to ecoregions at CRR Reply 32-35 fail on the merits because they are based on a misunderstanding of EPA's explanation of ecoregion analyses in the Approval and Reconsideration.²¹ That misunderstanding (as do others discussed *supra*) stems from CRR's misunderstanding regarding the multi-indicator nature of Minnesota's Total Phosphorus+BOD₅ and Total Phosphorus+DO flux criteria, and the way in which they were developed.

CRR asserted essentially the same arguments in its letter seeking reconsideration of the Approval, and EPA responded in the challenged Reconsideration. *See* CRR-16036 (Reconsideration), 15878-81 (Approval). EPA clearly stated in its opening brief—and the record

²¹ Notwithstanding CRR's suggestions to the contrary, particularly those at CRR Reply 33-34 and nn.39-40, the discussion and record citations in EPA Br. 24 and 34-36 are accurate. Contrary to CRR Reply n.39, the record citations in EPA's opening brief directly support the agency's statements regarding the analyses that Minnesota performed. CRR Reply n.40 does not accurately quote EPA's brief, and the mis-quoted statements are inapposite to the subject matter in the sentence to which the footnote is appended. Neither the quotations, nor the EPA Br. sections from which they were cherry-picked, discuss physiological bases for ecoregion criteria or warm water fisheries. EPA's record citations also are mis-quoted in footnote 40, but the actual citations in EPA's opening brief directly support the agency's statements.

In addition, the various components of footnote 40 are not directly related to each other. The first quotation makes a general statement about implementation issues from Step 4 of the Stressor-Response Guidance process, not about "analysis." Hence, the record pages that EPA actually cited do not discuss an analysis, although they directly support EPA's statement. The second quotation is incomplete, and omits a key phrase from the beginning which establishes that EPA was discussing an entirely different portion of the Stressor-Response Guidance process—Step 3. Finally, the record document cited in the last sentence of footnote 40 was a review of a draft State document in February 2010. *See* Certified Index to the Admin. Record (Dkt No. 12) ("Certified Index"), AR 61. The State responded to that review later in 2010, while it was still developing the criteria at issue only were finalized in mid-2014. *Compare* Certified Index AR 61 *with* AR 62; *see* CRR-15863. That document and its subject matter also have no clear relationship to either of the quotations in footnote 40.

citations clearly support—that ecoregions were identified based on different ecological responses to *phosphorus* in different portions of the State:

Consistent with previous ecoregion analyses for other pollutants, and additional statistical analyses recommended in the Stressor-Response Guidance, MPCA determined that: (1) fish and invertebrates began suffering harm at significantly different phosphorus levels in three distinct regions of the State (CRR15879-80, 16042); and (2) naturally-occurring background levels of phosphorus differed significantly between those same three regions. CRR-15879, 16042. The State therefore determined that different criteria should be established for each of these three ecoregions. CRR-15878, 15880-81, 16036.

EPA Br. at 16 (all CRR citations are to administrative record documents). EPA also clearly stated—and the record citations clearly support—that the statistical analyses recommended by the Stressor-Response Guidance allowed the State to determine that the levels of harm to aquatic life were related to concentrations of the causal variable *phosphorus*, and to rates of change in the response variables BOD₅ and DO flux:

The State then conducted numerous different types of statistical analyses recommended in the Stressor-Response Guidance, by ecoregion, to assess the relationships between the causal and response variables identified in Step 1. CRR-15822, 15881-85. These analyses revealed, among other things, that aquatic organisms suffer harmful effects over a range of phosphorus concentrations, and allowed MPCA to identify the point or “threshold” at which the most harm occurred per unit change in each response variable (*e.g.*, BOD₅, DO flux). CRR-15886.

Id. Hence, the State was able to relate measurable harm caused by phosphorus to particular levels of BOD₅ or DO flux, and establish its nutrient criteria accordingly for each ecoregion. CRR’s arguments at CRR Reply 32-34 therefore lack merit and should be rejected.²²

²² Because there were no significant differences for DO flux among the ecoregions, as CRR itself noted at CRR Reply 35, the DO flux component of the Total Phosphorus+DO flux criterion is the same for all three ecoregions. Hence, CRR’s DO flux-based arguments at CRR Reply 34-35 also are inapposite and should be rejected.

V. THE COURT CANNOT VACATE MINNESOTA'S EUTROPHICATION STANDARDS.

Finally, CRR now asks the Court to vacate the BOD₅ and DO flux nutrient components of Minnesota's multi-factor eutrophication standards. CRR Opp. at 41. As explained *supra* at 5-6 and in EPA's opening brief, Minnesota's eutrophication standards are not before this Court. Instead, only EPA's Approval and Reconsideration are before the Court. While EPA strongly believes that both of these decisions meet the standard articulated in *State Farm, BG&E* and their progeny, if the Court finds otherwise, it is empowered to remand the Approval and Reconsideration to EPA with or without vacatur. See *Humane Soc. of the United States v. Zinke*, 865 F.3d 585, 614 (D.C. Cir. 2017). The Court cannot specify the outcome of any subsequent EPA action, however, and certainly cannot invalidate the underlying standards that Minnesota adopted pursuant to state law and that were affirmed over CRR's objection in state administrative and court proceedings.

CONCLUSION

For all of the foregoing reasons, CRR has failed to establish that EPA's Approval and Reconsideration are arbitrary or capricious. EPA's cross-motion for summary judgment therefore should be granted, and CRR's motion denied.

Respectfully Submitted,

/s/ Heather E. Gange
HEATHER E. GANGE, Sr. Attorney
D.C. Bar 452615
Environmental Defense Section
P.O. Box 7611
Washington, DC 20044
Tel: (202) 514-4206
Fax: (202) 514-8865
Heather.Gange@usdoj.gov

Dated: March 13, 2019

CERTIFICATE OF SERVICE

I, Heather E. Gange, certify that on this 13th day of March, 2019, the foregoing was filed through the court's electronic filing system, which will provide electronic notice to the following counsel of record:

John C. Hall
Counsel for Plaintiff

Stacey Pearson
Max H. Kieley
Paige S. Stradley
Michael A. Erbele
Counsel for Intervenor-Defendants

/s/ Heather E. Gange
Heather E. Gange
D.C. Bar 452615
Environmental Defense Section
P.O. Box 7611
Washington, DC 20044
Tel: (202) 514-4206
Fax: (202) 514-8865
Heather.Gange@usdoj.gov