

<input type="radio"/> G. Habeas Corpus/ 2255 <input type="checkbox"/> 530 Habeas Corpus – General <input type="checkbox"/> 510 Motion/Vacate Sentence <input type="checkbox"/> 463 Habeas Corpus – Alien Detainee	<input type="radio"/> H. Employment Discrimination <input type="checkbox"/> 442 Civil Rights – Employment (criteria: race, gender/sex, national origin, discrimination, disability, age, religion, retaliation) *(If pro se, select this deck)*	<input type="radio"/> I. FOIA/Privacy Act <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 890 Other Statutory Actions (if Privacy Act) *(If pro se, select this deck)*	<input type="radio"/> J. Student Loan <input type="checkbox"/> 152 Recovery of Defaulted Student Loan (excluding veterans)
<input type="radio"/> K. Labor/ERISA (non-employment) <input type="checkbox"/> 710 Fair Labor Standards Act <input type="checkbox"/> 720 Labor/Mgmt. Relations <input type="checkbox"/> 740 Labor Railway Act <input type="checkbox"/> 751 Family and Medical Leave Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Empl. Ret. Inc. Security Act	<input type="radio"/> L. Other Civil Rights (non-employment) <input type="checkbox"/> 441 Voting (if not Voting Rights Act) <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 440 Other Civil Rights <input type="checkbox"/> 445 Americans w/Disabilities – Employment <input type="checkbox"/> 446 Americans w/Disabilities – Other <input type="checkbox"/> 448 Education	<input type="radio"/> M. Contract <input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholder's Suits <input type="checkbox"/> 190 Other Contracts <input type="checkbox"/> 195 Contract Product Liability <input type="checkbox"/> 196 Franchise	<input type="radio"/> N. Three-Judge Court <input type="checkbox"/> 441 Civil Rights – Voting (if Voting Rights Act)

V. ORIGIN
 1 Original Proceeding
 2 Removed from State Court
 3 Remanded from Appellate Court
 4 Reinstated or Reopened
 5 Transferred from another district (specify)
 6 Multi-district Litigation
 7 Appeal to District Judge from Mag. Judge
 8 Multi-district Litigation – Direct File

VI. CAUSE OF ACTION (CITE THE U.S. CIVIL STATUTE UNDER WHICH YOU ARE FILING AND WRITE A BRIEF STATEMENT OF CAUSE.)
 5 U.S.C. §§ 702, 704 & 706 (Admin. Proc. Act - agency action arbitrary, capricious, or not in accordance with the law and

VII. REQUESTED IN COMPLAINT	CHECK IF THIS IS A CLASS ACTION UNDER F.R.C.P. 23 <input type="checkbox"/>	DEMAND \$	JURY DEMAND: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
VIII. RELATED CASE(S) IF ANY	(See instruction)	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	If yes, please complete related case form

DATE: <u>7/12/16</u>	SIGNATURE OF ATTORNEY OF RECORD:
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INSTRUCTIONS FOR COMPLETING CIVIL COVER SHEET JS-44
 Authority for Civil Cover Sheet

The JS-44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and services of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. Listed below are tips for completing the civil cover sheet. These tips coincide with the Roman Numerals on the cover sheet.

- I. COUNTY OF RESIDENCE OF FIRST LISTED PLAINTIFF/DEFENDANT (b) County of residence: Use 11001 to indicate plaintiff if resident of Washington, DC, 88888 if plaintiff is resident of United States but not Washington, DC, and 99999 if plaintiff is outside the United States.
- III. CITIZENSHIP OF PRINCIPAL PARTIES: This section is completed only if diversity of citizenship was selected as the Basis of Jurisdiction under Section II.
- IV. CASE ASSIGNMENT AND NATURE OF SUIT: The assignment of a judge to your case will depend on the category you select that best represents the primary cause of action found in your complaint. You may select only one category. You must also select one corresponding nature of suit found under the category of the case.
- VI. CAUSE OF ACTION: Cite the U.S. Civil Statute under which you are filing and write a brief statement of the primary cause.
- VIII. RELATED CASE(S), IF ANY: If you indicated that there is a related case, you must complete a related case form, which may be obtained from the Clerk's Office.

Because of the need for accurate and complete information, you should ensure the accuracy of the information provided prior to signing the form.

**UNITED STATES DISTRICT COURT
FOR THE DISCTRICT OF COLUMBIA**

Center for Regulatory Reasonableness, Inc.	:	
	:	
Plaintiff,	:	
	:	
v.	:	Case No. _____
	:	
The United States Environmental Protection Agency, and	:	
	:	
The United States Environmental Protection Agency, Region 5	:	
	:	
Defendants.	:	
	:	

Plaintiff, Center for Regulatory Reasonableness (“CRR”), on behalf of its municipal members in Minnesota and throughout the country, files this Complaint seeking relief in the nature of a mandamus, declaratory judgment and injunctive relief against Defendants, United States Environmental Protection Agency and United States Environmental Protection Agency Region 5 (collectively “EPA” or “the Agency”). CRR alleges the following:

Preliminary Statement

1. This matter arises out of EPA’s final actions under the Federal Water Pollution Control Act (“Clean Water Act” “CWA” or “the Act”), 33 U.S.C. §§ 1251 *et seq.* that violated the Administrative Procedure Act (“APA”), 5 U.S.C. §§ 551 *et seq.*, in that such final actions were arbitrary, capricious, or not otherwise in accordance with the law. CRR brings this action pursuant 5 U.S.C. § 702, which provides for judicial review of final agency actions not otherwise reviewable by statute. *See also* 5 U.S.C. §§ 704 & 706.

2. In this matter, the final actions at issue are (1) EPA’s approval of the Minnesota Pollution Control Agency’s (“MPCA”) submission of new and revised water quality standards (“WQS”),

and (2) EPA's refusal to withdraw the approval following a request by CRR. In particular, this suit challenges EPA's approval, and subsequent refusal to withdraw its approval, of two response variables (*i.e.*, diel DO flux and BOD5) associated with MPCA's new eutrophication criteria for rivers and streams.

3. EPA's approval of, and subsequent refusal to withdraw, MPCA's adoption of the BOD5 test as an indicator of nutrient impairment was completely unprecedented and unsupportable. Using the BOD5 test as an indicator for nutrient impairment runs afoul with the opinions of leading experts on the subject matter and the Standard Methods relied on by EPA for proper test development. Moreover, EPA possesses no published Section 304(a) nutrient criteria guidance confirming that BOD5 is a valid indicator of nutrient impairment or nutrient impacts, a fact confirmed by recent EPA correspondence.

4. Similarly, EPA's approval of, and subsequent refusal to withdraw, MPCA's adoption of diel DO flux as a response variable for the identification of nutrient impairment was arbitrary, capricious, and completely lacking in scientific rationale. Use of diel DO flux as a nutrient response variable to identify aquatic life impairment, as opposed to minimum DO, has not been accepted by the scientific community and has not been endorsed in any EPA guidance documents dealing with the development of nutrient criteria, including EPA's Gold Book (304(a) criterion). In fact, EPA has affirmed that the Agency has no documentation supporting use of DO flux as an aquatic life impairment parameter. Moreover, neither EPA nor MPCA supplied any information confirming that the selected DO range threshold is beyond that expected to be naturally occurring. Rather, the data presented by MPCA confirmed that even unimpaired streams with a safe level of plant growth will violate this DO flux "impairment" criteria.

5. EPA's approval of, and subsequent refusal to withdraw, MPCA's WQS submission is arbitrary and capricious because the EPA approved different BOD5 and diel DO flux numeric variables as necessary to protect the same type of fishery classification. No physiological basis was provided to justify different "protective criteria" for response variables in waters similarly classified. Absent some rational explanation of, mechanistically, how this could occur and credible scientific studies supporting the conclusion (which do not exist in the record), it is arbitrary and capricious to employ different numeric variables for BOD5 and diel DO flux for narrative WQS compliance based on geographic location.

6. MPCA determined the allowable level of algal growth for river systems based on its belief that BOD was the factor causing aquatic life impairment and that algal growth caused increased BOD to occur in receiving waters. Neither assumption is scientifically defensible. Therefore, EPA's approval of the selected level of algal growth was arbitrary and capricious.

7. MPCA determined that there was some type of correlation between changing aquatic life metrics (*e.g.*, fish populations) and the amount of BOD measured in the receiving waters. However, a mere correlation between BOD and various aquatic life metrics does not provide a defensible scientific basis to conclude that BOD was the cause of the changing aquatic life metric and, therefore, should be regulated as an impairment indicator under the Clean Water Act. Accordingly, EPA's approval of this approach was, therefore, arbitrary and capricious.

8. The levels of BOD and DO flux occurring in a water body may be affected by a host of non-nutrient factors. Therefore, it is not possible to conclude that the measurements obtained for these parameters are due to nutrients causing excessive algal growth, without additional information. EPA's approval of, and subsequent refusal to withdraw, MPCA's WQS submission is arbitrary and capricious and not in accordance with the law because MPCA did not submit,

and EPA did not independently prepare, a confounding factors analysis for the statistical analyses developed by MPCA for BOD and DO flux. Such a “confounding factors” analysis is required by the Agency’s own nutrient criteria guidance documents to develop scientifically defensible nutrient criteria. However, MPCA admitted that no such analysis was done and that the correlations presented could have been affected by other, non-nutrient factors.

9. Water quality criteria are intended to be based on scientifically defensible analyses showing the degree of water quality necessary to protect the designated uses. Normally, criteria are established at the threshold at which increased concentration of the pollutant will cause impairment to the designated use. Exceedances of such numeric criteria are used by the state and EPA to designate waters as impaired, under Section 303(d) of the Act. EPA relies on such impairment designations when determining that more restrictive pollution reduction requirements are mandated by federal law. However, in this case, EPA has approved the use of nutrient impairment indicators – DO flux and BOD – that are not based on an impairment threshold. The BOD concentration of surface water does not cause aquatic life impairment. DO Flux does not cause impairment to aquatic life. EPA’s approval of these parameters and the selected instream water quality that constitutes a determination that uses are impaired is arbitrary and capricious.

10. Based on ¶¶3-9, which are documented in more detail herein, CRR seeks a declaration under the APA that EPA’s approval of, and subsequent refusal to withdraw, MPCA’s WQS submission of select nutrient impairment evaluation variables (BOD5 test and diel DO flux) was arbitrary, capricious, and/or not otherwise in accordance with the law.

Parties

11. CRR is a coalition of municipal and industrial entities from across the United States (including numerous members in Minnesota). CRR is dedicated to ensuring that regulatory

requirements applicable to its members are (1) based on sound scientific information, (2) allow for flexible implementation, (3) require attainable, cost-effective compliance options, and (4) are imposed after full consideration of public comments regarding the need for and efficacy of such requirements.

12. Defendant, United States Environmental Protection Agency, is the federal agency responsible for implementing the CWA, including the requirements of CWA § 303(c), 33 U.S.C. § 1313(c) and EPA's 40 C.F.R. Part 131 regulations. Among many other responsibilities, EPA is tasked with reviewing and approving/disapproving water quality standards developed by the individual states.

13. Defendant, EPA Region 5 is responsible for administering and implementing section 303(c) of the CWA and its 40 C.F.R. Part 131 regulations in Minnesota.

Jurisdiction and Venue

14. This Court has jurisdiction of this civil action under 28 U.S.C. § 1331 (federal question); and 28 U.S.C. § 2201 (declaratory relief); 5 U.S.C. § 702 (APA – agency actions not otherwise reviewable); and 28 U.S.C. § 1361 (action in the nature of mandamus to compel an officer or employee of the United States or any agency thereof to perform a duty owed to Plaintiff).

15. Venue is proper in this district under 28 U.S.C. § 1391(b) because a substantial part of the events or omissions giving rise to the claim arose in Washington, D.C. and both CRR and EPA's headquarters are located in Washington, D.C.; and under 28 U.S.C. § 1391(e) because it is a civil action against the United States, its agencies and/or officers or employees of those agencies acting in their official capacities.

16. The actions of EPA challenged herein have a direct and significant impact on CRR, by and through its members, because they will result in legally flawed and scientifically unsound water quality criteria that have and/or will cause significant financial injury to CRR's members.

As a result of EPA's approval of MPCA's revised eutrophication standards, waterbodies in the state of Minnesota will be improperly designated as nutrient impaired.¹ Moreover, EPA's approval will result in Minnesota WQS that are not based on sound scientific rationale and are inconsistent with EPA, existing 304(a) criteria, and all EPA guidance on nutrient criteria development. The consequences of flawed WQS criteria and improper listing determinations are massive. First, a Total Maximum Daily Load ("TMDL") must usually be prepared for all waterbodies that are nutrient impaired as a means to determine and allocate the total amount of nutrients a waterbody can retain without violating the water quality standard. *See* 33 U.S.C. § 1313(d); 40 C.F.R. § 130.2(h)-(i); 40 C.F.R. § 130.7(c). Second, dischargers to impaired waterbodies – whether a TMDL has been issued or not – customarily receive more stringent water quality-based effluent limitations under 40 C.F.R. § 122.44(d) that will be directly influenced by the WQS in effect in an individual state. As a means to comply with nutrient TMDLs and/or the more stringent permit limitations, CRR members on waterbodies designated as nutrient impaired will have to expend resources to reduce nutrient discharges, creating additional solid waste for disposal, consuming electricity and chemical usage. Such technology comes at cost to the municipal permittees, which can only be funded through municipal bonds and tax hikes to the constituents. Finally, CRR's other members throughout the country will be impacted as a result of the scientifically unsound precedent being established by EPA and its Region 5 office.

17. CRR is a "person" as defined by 5 U.S.C. § 551(2).

18. Under 28 U.S.C. § 2501, CRR has a six year statute of limitations to challenge EPA WQS approvals; this lawsuit is well within that timeframe.

¹ Conversely, it also possible that the numeric criteria selected for DO flux range or BOD5 will not be exceeded in situations where there is a real nutrient impairment.

Regulatory Background

19. The CWA delegates responsibility to the states to establish water quality standards (“WQSs”). 33 U.S.C. § 1313(a)-(c). WQSs consist of (a) designated uses of the state’s waters, (b) numeric and narrative criteria necessary to protect the designated uses, and (c) and “antidegradation” policy and implementation plan for waters that meet or exceed their corresponding WQSs. 33 U.S.C. § 1313(c)(2)(A); 40 C.F.R. § 131.6.

20. EPA must review and either approve or disapprove all new or revised state WQSs. 33 U.S.C. § 1313(c)(2)(A).

21. A state may not use new or revised WQSs within its state or federal regulatory program until EPA has approved it. *Alaska Clean Water Act Alliance v. Clarke*, 1997 U.S. Dist. LEXIS 11144, 27 ELR 21330 (W.D. Wash. 1997) (new and revised state water quality standards are not effective for Clean Water Act purposes until approved by EPA).

22. If EPA disapproves a new or revised WQS, EPA must, within 90 days, notify the State and specify the changes necessary to be consistent with the CWA. 33 U.S.C. § 1313(c)(3).

23. If the state does not correct the new or revised WQS in accordance with EPA’s changes within 90 days, EPA shall promptly “prepare and publish proposed regulations setting forth a revised or new water quality standard.” 33 U.S.C. § 1313(c)(3) and (c)(4)(A). After publishing the proposed regulations, EPA must promulgate any such revised or new standard within 90 days, unless in the interim the state has cured the defect. 33 U.S.C. § 1313(c)(4).

24. EPA’s obligation to review new or revised WQSs applies regardless of whether the water quality standard at issue is a numeric or narrative criterion. Accordingly, narrative criteria interpretation approaches must undergo the same public review and adoption process as numeric criteria. 40 C.F.R. §§ 131.13 and 131.21.

25. Under EPA's statutory and regulatory requirements, this review shall ensure that the standards include, *inter alia*, (1) designated uses that are consistent with the CWA, (2) information concerning the methodology for choosing these uses, (3) water quality criteria sufficient to protect the designated uses, (4) an antidegradation policy to prevent clean waters from slipping below applicable standards, (5) a certification that the water quality standards were properly adopted in a manner consistent with state law and (6) general information useful in aiding the Agency's review. 40 C.F.R. § 131.6(a)-(f); 40 C.F.R. § 131.20(b); *see generally* 33 U.S.C. §§ 1313(c)-(d).

26. In reviewing a state's WQS submission, EPA must first determine that the standards are consistent with the CWA. *See* 33 U.S.C. § 1313(c)(3) ("If the Administrator determines that any such revised or new standard is not consistent with the applicable requirements of this chapter, he shall ... notify the State and specify the changes to meet such requirements.").

27. Second, as part of its WQS review, EPA must confirm that state water quality standards are "based on (i) [EPA's] 304(a) guidance; or (ii) 304(a) Guidance modified to reflect site-specific conditions; or (iii) Other scientifically defensible methods." 40 C.F.R. § 131.11(b)(1).

28. Third, in order to approve a state WQS, EPA must confirm that the criteria (one of the components of the WQS) were developed using a "sound scientific rationale." 40 C.F.R. § 131.11(a) ("States must adopt those water quality criteria that protect the designated use. Such criteria *must be based on sound scientific rationale* and must contain sufficient parameters or constituents to protect the designated use.") (emphasis added).

29. Water quality criteria are to be based on defined cause and effects relationships between the pollutant concentration present and the forms of aquatic life to be protected.

30. EPA regulations require the Agency's review of state WQS to confirm "[w]hether the State standards which do not include the uses specified in section 101(a)(2) of the Act are based upon appropriate technical and scientific data and analyses...." 40 C.F.R. § 131.5(a)(4) (2008). This rule was revised in 2015 to clarify that, as part of its review and approval of state WQS, EPA must confirm that adopted state criteria are "based on sound scientific rationale consistent with § 131.11." 40 C.F.R. § 131.5(a)(2); 80 Fed. Reg. 51020 (Aug. 21, 2015).

31. EPA's review and approval of a state water quality submission must be thorough and probing and cannot simply accept the State's submission on face value. 80 Fed. Reg. 51020, 51028 (Aug. 21, 2015) ("Ultimately, states and authorized tribes must adopt criteria that are scientifically defensible and protective of the designated use to ensure that WQS continue to 'protect the public health or welfare, enhance the quality of water and serve the purpose of' the Act.").²

32. In the case of nutrient standards, EPA's review and approval of the specific biological response variables, must confirm that the chosen thresholds (1) [h]ave a basis in science that relates the measurements specified by the procedure to the desired condition or adverse condition to be avoided, as described by the narrative; (2) [e]ffectively separate waters into groups where (a) protection of the use is clearly threatened or impaired and (b) where protection of the use is uncertain . . . ; [and](3) [*u*]tilize the proper parameters and constituents to achieve the

² *Fla. Clean Water Network, Inc. v. EPA*, 2012 U.S. Dist. LEXIS 44539, *30 (N.D. Fla. 2012) ("In order to approve a new or revised water quality standard, the EPA must find that it is consistent with federal regulations and the CWA; in making such a determination, the EPA must consider whether the new or revised standard adequately protects the designated uses of the state's waterbodies and is based on a sound scientific rationale."); *Mississippi Com. On Natural Resources v. Costle*, 625 F.2d 1269, (5th Cir. 1980) ("It was not unreasonable for the EPA Administrator to... require states to justify standards not in conformance with the [EPA 33 U.S.C. § 1314(a)(1)] criteria policy.").

objectives set forth above. Fla. Clean Water Network, Inc. v. EPA, 2012 U.S. Dist. LEXIS 44539, *32 (N.D. Fla. 2012) (emphasis added).

Factual Background

33. On August 4, 2014, MPCA adopted amendments to Minn. R. 7050.0150, 7050.0220, and 7050.0222. These amendments establish numeric eutrophication water quality standards for rivers and streams in Minnesota. The rules provided numeric thresholds for phosphorus as well as several “response variables” purported to indicate excess algae growth: sestonic chlorophyll *a*, diel DO flux, BOD5 and pH.

34. These formally adopted amendments were also submitted to EPA for review on August 4, 2014.

35. The monitored instream BOD test results were used by MPCA to (1) demonstrate adverse impacts on aquatic life caused by a given instream concentration of BOD, and (2) select the acceptable amount of algal growth (and related TP concentration) that would not cause instream BOD to exceed the level that MPCA claimed was related in aquatic life impairment.

36. The TP level selected by MPCA as the “causal variable” was the amount of TP that was predicted to control algal growth to the “safe” level chosen through the BOD-algal relationship.

37. The instream concentration of TP itself does not cause aquatic life impairment.

38. As it concerns this lawsuit, the amended WQS prescribe numeric values for each of these response and causal variables, according to any one of three “river nutrient regions.” *See* Minn. R. 7050.0222, subps. 2, 2b, 3, 3b, 4, and 4b.

Table IV.1. Minnesota's multi-indicator eutrophication criteria for rivers and streams

Ecoregion	TP (µg/L)	Chlorophyll <i>a</i> (µg/L)	Daily DO flux (mg/L)	BOD ₅ (mg/L)	pH
North	50	7	3	1.5	CW: 6.5-8.5 WW: 6.5-9.0 (From MN WQS)
Central	100	18	3.5	2	
South	150	35	4.5	3	

39. Under the revised eutrophication criteria, a Minnesota stream or river is impaired for nutrients if (1) the total phosphorus (TP) value is exceeded, and any of the four response variables (*i.e.*, sestonic chlorophyll *a*, diel DO flux, BOD₅ and pH) are also exceeded. Conversely, if the TP value is met, or all four of the response variables are in compliance with MPCA's threshold values, then the waterbody is not considered nutrient impaired.

40. On January 23, 2015, EPA approved MPCA's submission of the new and revised water quality standards and criteria. *See* Ex. 1, EPA's Approval Letter and Technical Support Document.

41. On December 10, 2015, CRR submitted a letter to EPA Headquarters and Region 5 requesting withdrawal of EPA's approval of MPCA's submission based on the major errors in the eutrophication standards, particularly the use of BOD₅ and diel DO flux as response variables to indicate a nutrient impairment. *See* Ex. 2, CRR's Withdrawal Request to EPA.

42. On June 30, 2016, EPA denied CRR's request to reconsider and/or withdrawal its approval of MPCA's eutrophication criteria for rivers and streams. *See* Ex. 3, EPA's Denial of CRR's Reconsideration Request.

Major Legal and Technical Errors in EPA's Approval

BOD5 Test

43. Nutrients (nitrogen and phosphorus) do not exert a BOD.
44. Nutrients are not toxic to and do not cause direct adverse impacts on aquatic life.
45. Wastewater discharges contain numerous other carbon and nitrogen based compounds that exert a BOD at the point of discharge and further downstream.
46. The adopted nutrient criteria apply at the point of discharge, as well as in downstream waters.
47. Regardless of nutrient impacts, a facility's approved effluent limits related to parameters that cause BOD could also cause this nutrient criteria impairment indicator to be violated at the point of discharge.
48. The 5-day BOD demand measures the effects of numerous non-nutrient parameters (organic substances, nitrogenous material) and is artificially inflated by effects from live algae placed in the dark for five days. *See Ex. 4, Chapra Analysis of BOD5.*
49. Utilizing the BOD5s test with ambient samples containing live algae would very likely produce a BOD reading that does not actually exist and is simply an artifact of the test method. *See Ex. 4, Chapra Analysis of BOD5.*
50. BOD5 is not a "toxic" measurement and does not directly impair aquatic life.
51. It is impossible to determine what ecological impact could be associated with a BOD5 reading without further site-specific analyses. *See Ex. 5, Excerpts of January 8, 2014 MPCA Hearing Testimony, at 142-143.*
52. No published EPA nutrient criteria document states that the BOD5 test is a valid indicator of nutrient impairment.

53. No published, peer reviewed EPA document asserts that BOD should be regulated as a parameter that causes direct adverse impacts on aquatic life.

54. The parameter measured as BOD is not “toxic” to aquatic life.

55. Prior to EPA’s approval action, EPA conceded that it possesses no documentation supporting the use of the 5-day BOD demand (BOD5) test as a proper nutrient response criterion. *See Ex. 6, BOD5 FOIA Request/Response.*

56. EPA regulations rely on *Standard Methods* to describe the proper methodology and uses of various test procedures.

57. The *Standard Methods* (the expert EPA relies upon for proper test development and usage – *see* 40 C.F.R. § 136.3) states that BOD5 should not be used as a parameter to evaluate the presence of a nutrient impairment.³

Diel DO Flux

58. Use of DO flux as a nutrient response variable to identify aquatic life impairment, as opposed to minimum DO, has not been accepted by the scientific community and has not been endorsed in any EPA guidance documents dealing with the development of nutrient criteria.

59. DO flux is not listed in any Section 304(a) criteria document as an adverse impact that must be regulated to protect designated uses or aquatic life.

60. DO flux is affected by other, non-nutrient factors (*e.g.*, temperature, natural plant growth, stream depth existence of wetlands, and velocity) and one cannot assess the ecological significance of the measured DO flux without conducting further detailed assessments.

³ *See Ex. 7, Standard Methods Memo on BOD5 test, Eaton, A. November 19, 2014. Memorandum: RE: BOD as an Indicator of Nutrient Pollution. Standard Methods for the Examination of Water and Wastewater Joint Editorial Board. Available at https://www.standardmethods.org/PDF/BOD_Nutrient_Pollution_Memo_2014.pdf*

61. EPA affirmed that it has no documentation supporting use of DO flux as an aquatic life impairment parameter. *See* Ex. 8, DO flux FOIA Request/Response with follow-up correspondence.

62. EPA's Gold Book (and 304(a) criterion) indicates that DO minimum is the factor of concern and nowhere indicates DO flux as an independent aquatic life impairment metric. *See Quality Criteria for Water 1986* ("Gold Book"), EPA Publication 440586001, May 1987, at 209-216.⁴

63. MPCA's submission did not provide an explanation for why it adopted a parameter that was inconsistent with EPA's 304(a) criteria.

64. DO flux is a phenomena that occurs in all natural waters due to a number of naturally occurring conditions.

65. MPCA's submission provided no information to confirm that the selected DO flux range set forth in the adopted nutrient criteria is beyond that expected to be naturally occurring.

66. Plant growth occurs in virtually all streams and is necessary to support a healthy fishery and diverse assemblage of insect life. As EPA is well aware from its nutrient TMDL assessments, extensively published literature, and MPCA documentation as part of this rulemaking, plant growth (periphyton) may reach high levels (>200 mg/m² chlorophyll a) even in nutrient poor waters.

67. Both EPA and MPCA recognize that up to 150 mg/m² chl-a represents a "safe level" of plant growth in streams. Minn. R. 7050.0222, Subp. 2b(C) (2015); *see also* Nutrient Criteria Technical Guidance Manual Rivers and Streams, EPA-822-B-00-002, July 2000, at 100.

⁴ The *Gold Book* doesn't have page numbers. Accordingly, the cited page numbers are PDF version page numbers.

68. The degree of DO flux caused by the “safe” level of periphyton growth, conversely, is a function of the physical conditions of a stream (*e.g.*, depth, slope, etc.).

69. Data presented by MPCA confirmed that even streams with a safe level of plant growth may exceed this DO flux “impairment” criteria. *See also* Ex. 9, Gallagher Analysis, at 2

70. MPCA’s own data presentation and the testimony of an independent expert (nowhere refuted in the record) clearly demonstrate that the DO flux range approved by EPA is not necessary to protect stream uses.

Different BOD5 and diel DO flux values in similarly classified waters

71. EPA approved different BOD5, algal levels, and diel DO flux numeric variables as necessary to protect the same type of fishery classification.

72. For instance, depending on its location within the state of Minnesota, the impairment threshold BOD5 level can be anywhere from 1.5 mg/L to 3.0 mg/L for warm water fisheries and the diel DO flux range can be as large as 4.5 mg/L to as small as 3.0 mg/L. It is not apparent how warm water (Class 2) fishery sensitivity to these parameters could vary based on the location within the state.

73. No physiological basis was provided to justify different “protective criteria” for response variables in waters similarly classified. For example, no data show that warm water fisheries in the North ecoregion are more sensitive to DO flux or BOD than those found in South ecoregion.

No impairment threshold demonstrations made

74. The selected concentration values for BOD and DO Flux were not demonstrated to be set at or near the impairment threshold.

75. DO flux does not cause impairment to aquatic life.

76. MPCA acknowledged that BOD does not cause impairment to aquatic life.

77. Although MPCA acknowledged that BOD does not directly impact aquatic life, MPCA selected, and EPA approved, the allowable level of BOD based on an alleged relationship between instream BOD concentration and aquatic life metric impairments.

78. MPCA's selection and EPA's approval of the claimed "causal" relationship between BOD and aquatic life impairment in streams was arbitrary and capricious as no such "relationship" physically or scientifically exists.

No confounding factors analysis performed

79. Unlike most other pollutants, it is well recognized that nutrients do not have any direct toxic effect on human or ecological health. Rather, the threat posed by nutrients is tied to excessive plant growth and the adverse side effects such plant growth can have on the aquatic community.

80. The nutrient-plant growth relationship in streams, however, involves numerous intricate and interconnected factors (*e.g.*, scour, light availability, sedimentation) that dramatically alter the relationship between nutrients and plant growth. Certain metrics (such as invertebrate or fishery assemblage) are impacted by numerous non-nutrient factors (*e.g.*, habitat, toxics, sedimentation).

81. In developing its eutrophication standards, MPCA used an aquatic life fishery metric (*e.g.*, number of darters present) to determine impairment thresholds for BOD, algal growth and DO flux in a "stressor-response" regression analysis.

82. To ensure such stressor-response analyses are scientifically defensible, EPA's guidance requires those developing nutrient criteria to evaluate and adjust for the presence of confounding factors. *See Using Stressor-Response Relationships to Derive Numeric Nutrient Criteria*. EPA-820-S-10-001, November 2010, at 11, 65-67.

83. MPCA should have conducted a confounding factors analysis in developing its eutrophication standards for BOD and DO flux, assuming that they are scientifically defensible impairment criteria and were the actual factors causing the changes in the aquatic life metrics used to define stream impairment.

84. If MPCA wanted to use and EPA wanted to approve BOD as a response criteria indicative of aquatic life impairment due to nutrients, both parties were required to confirm that BOD, and not some other parameter, was the actual factor causing the adverse changes in aquatic life metrics used in the analyses.

85. MPCA never determined that BOD was the actual parameter causing the change in aquatic life metrics and, therefore, all subsequent analyses and relationships relying on this presumed BOD-aquatic life impairment relationship are unsupported and arbitrary and capricious.

86. EPA's approval letter was premised on the fact that a confounding factors analysis, consistent with the 2010 Stressor-Response guidance, had been conducted by MPCA.

87. Ultimately, however, MPCA admitted that no such stressor-response analysis was done and that the correlations presented could have been affected by other factors. *See* Ex. 5, Excerpts of January 8, 2014 MPCA hearing testimony, at 101-102, 107-108, 111.

COUNT I

VIOLATION OF ADMINISTRATIVE PROCEDURE ACT, 5 U.S.C. § 706(2): EPA'S APPROVAL OF MPCA'S WQS SUBMISSION WAS ARBITRARY, CAPRICIOUS, AN ABUSE OF DISCRETION, UNSUPPORTED BY SUBSTANTIAL EVIDENCE, IN EXCESS IN STATUTORY JURISDICTION, OR OTHERWISE NOT IN ACCORDANCE WITH LAW

88. The allegations contained in the preceding paragraphs of this Complaint are re-alleged and incorporated herein by reference.

89. Federal law provides that an agency's action must be set aside if the agency has exceeded its statutory jurisdiction, authority, or limitations. 5 U.S.C. § 706(2)(C).

90. Agency action must be set aside if it is arbitrary, capricious, or an abuse of discretion. 5 U.S.C. § 706(2)(A).

91. Federal law also provides that an agency's action must be set aside if the action is not in accordance with the law. 5 U.S.C. § 706(2)(A).

92. In evaluating whether agency action is arbitrary and capricious, a court must determine whether the agency has examined the relevant data and articulated a rational connection between the facts found and the choice made. *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

93. EPA's approval of MPCA's WQS submission exceeded its statutory authority because the new/approved eutrophication standards are not consistent with the Clean Water Act.

94. EPA's approval of MPCA's WQS submission (BOD5 test, algal level, and diel DO flux) was arbitrary and capricious because the new/approved eutrophication standards are inconsistent with the Standard Methods, EPA's "Gold Book," established 304(a) criteria, EPA guidance documents on the establishment of nutrient criteria, and experts in the field of nutrient criteria development.

95. EPA's approval of MPCA's WQS submission was arbitrary and capricious because the Agency has admitted that it possesses no documentation supporting the use of diel DO flux and BOD5 test for identifying nutrient impairments and causing adverse impacts on aquatic life.

96. EPA's approval of MPCA's use of diel DO flux as an indicator for nutrient impairment was arbitrary and capricious because the selected DO flux range occurs naturally in unimpaired streams and rivers.

97. EPA's approval of MPCA's WQS submission was arbitrary and capricious and was not based on sound scientific rationale because EPA approved different BOD5 and diel DO flux values in similarly classified waters.

98. EPA's approval of MPCA's use of BOD as a parameter that causes aquatic life use impairment and responds to nutrient inputs was arbitrary and capricious.

99. EPA's approval of MPCA's use of BOD to select the allowable level of algal growth in rivers was arbitrary and capricious.

100. EPA's approval of MPCA's WQS submission was arbitrary and capricious and was not based on sound scientific rationale because the submission did not include, and EPA did not independently conduct, a confounding factors analysis, as required by EPA regulations and guidance.

WHEREFORE, CRR respectfully requests that the Court declare that EPA's approval of MPCA's WQS submission was arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law and, for those reasons, set aside EPA's approval.

COUNT II

VIOLATION OF ADMINISTRATIVE PROCEDURE ACT, 5 U.S.C. § 706(2): EPA'S DENIAL OF CRR'S REQUEST TO HAVE THE AGENCY RECONSIDER ITS APPROVAL OF MPCA'S WQS SUBMISSION WAS ARBITRARY, CAPRICIOUS, AN ABUSE OF DISCRETION, UNSUPPORTED BY SUBSTANTIAL EVIDENCE, IN EXCESS IN STATUTORY JURISDICTION, OR OTHERWISE NOT IN ACCORDANCE WITH LAW

101. The allegations of the preceding paragraphs of this Complaint are re-alleged and incorporated herein by reference.

102. Federal law provides that an agency's action must be set aside if the agency has exceeded its statutory jurisdiction, authority, or limitations. 5 U.S.C. § 706(2)(C).

103. Agency action must be set aside if it is arbitrary, capricious, or an abuse of discretion. 5 U.S.C. § 706(2)(A).

104. Federal law also provides that an agency's action must be set aside if the action is not in accordance with the law. 5 U.S.C. § 706(2)(A).

105. In evaluating whether agency action is arbitrary and capricious, a court must determine whether the agency has examined the relevant data and articulated a rational connection between the facts found and the choice made. *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

106. On December 10, 2015, CRR submitted a letter to EPA that detailed the substantive and legal shortcomings of EPA's approval of MPCA's WQS eutrophication standards for rivers and streams and requested EPA's reconsideration and withdrawal of its approval. On June 30, 2016, EPA denied CRR's reconsideration/withdrawal request. *See supra*, at ¶¶41-42.

107. EPA's denial of CRR's withdrawal/reconsideration request exceeded EPA's statutory authority because EPA rejected the information that confirmed the new/approved eutrophication standards are not consistent with the Clean Water Act.

108. EPA's denial of CRR's withdrawal/reconsideration request was arbitrary and capricious because, in so doing, EPA rejected the information that confirmed the new/approved eutrophication standards are inconsistent with the Standard Methods, EPA's "Gold Book," established 304(a) criteria, EPA guidance documents on the establishment of nutrient criteria, and experts in the field of nutrient criteria development.

109. EPA's denial of CRR's withdrawal/reconsideration request was arbitrary and capricious because, in so doing, EPA rejected the information that confirmed the Agency

possesses no documentation supporting the use of diel DO flux and BOD5 test for identifying nutrient impairments.

110. EPA's denial of CRR's withdrawal/reconsideration request was arbitrary and capricious because, in so doing, EPA rejected the information that confirmed the selected DO range threshold occurs naturally in unimpaired streams and rivers.

111. EPA's denial of CRR's withdrawal/reconsideration request was arbitrary and capricious because, in so doing, EPA rejected the information that showed EPA approved different BOD5 and diel DO flux values in similarly classified waters.

112. EPA's denial of CRR's withdrawal/reconsideration request was arbitrary and capricious because, in so doing, EPA ignored the fact that MPCA's WQS submission did not contain a confounding factors analysis, as required by EPA regulations and guidance.

WHEREFORE, CRR respectfully requests that the Court declare that, and set aside, EPA's denial of CRR's request to have EPA reconsider and withdraw its approval of MPCA's WQS submission to be arbitrary, capricious, an abuse of discretion, and/or otherwise not in accordance with the law

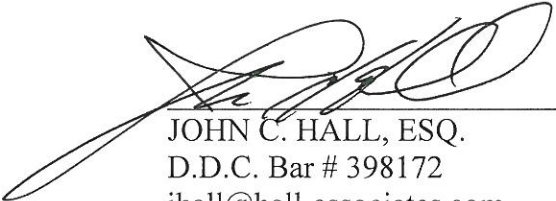
RELIEF REQUESTED

WHEREFORE, CRR respectfully requests that the Court grant the following relief:

- (a) Declare that EPA's approval of MPCA's WQS submission was arbitrary, capricious, and/or otherwise not in accordance with the law.
- (b) Declare that EPA's denial of CRR's request to have the Agency reconsider its approval of MPCA's WQS submission was arbitrary, capricious, not in accordance with the law, and/or action unreasonably withheld.
- (c) Set aside EPA's approval of MPCA's WQS submission.
- (d) Declare that MPCA's eutrophication standards for rivers and streams (BOD5 test and diel DO flux) to be void and of no effect.

- (e) Enjoin EPA and MPCA from applying the vacated eutrophication standards for rivers and streams in regulatory decisions until EPA or MPCA develop and adopt new standards consistent with this opinion.
- (f) Award CRR the costs of litigation, including reasonable attorneys' fees and costs and the costs of expert witnesses under the Equal Access to Justice Act.
- (g) Order any other relief as the Court deems just and proper.

Respectfully submitted,



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