

among other things, the excessive growth of algae.

3. For more than ten years, EPA has encouraged Missouri to develop numeric criteria to protect its waters from nutrient pollution. At all times, numeric criteria were a viable form of water quality standard because EPA had provided substantial guidance on their development and because other states had produced such criteria by accounting for variability of lake conditions.

4. In 2011, EPA disapproved Missouri's first attempt to enact numeric criteria for lakes, pointing out that Missouri's criteria were not based on a sound scientific rationale and that Missouri failed to show that the criteria would protect the lakes' aquatic life and recreation uses.

5. Missouri finalized its current nutrients standards in 2018. The standards do not contain numeric criteria for nutrient pollutants. Instead, the rule contains contain a numeric criterion for chlorophyll-a, a response variable. Missouri chose to use "screening thresholds" for nitrogen and phosphorus instead of numeric criteria.

6. An exceedance of a numeric criterion is considered an impairment of the waterbody. An exceedance of a screening threshold is not. Instead, an exceedance of a screening threshold triggers an additional inquiry into the waterbody through the use of "biological assessment endpoints," a list of five qualitative events that are caused by nutrient pollution.

7. EPA arbitrarily and capriciously approved the Missouri standards after EPA had previously informed Missouri that the evidence before it indicated that numeric criteria for nutrients were necessary. Although EPA discussed no new evidence indicating that numeric criteria for nutrients were not necessary and viable, EPA accepted Missouri's contention that MDNR could not produce numeric nutrients criteria at this time. It further took Missouri at its word that the standards it developed to protect the fishable use would also suffice to protect the swimmable and drinking water uses.

8. Further, in approving the biological assessment endpoints, EPA relied on an internal Missouri Department of Natural Resources (“MDNR”) document that MDNR submitted to EPA months after it had submitted the finalized standards for EPA approval.

9. This action seeks declaratory and injunctive relief. It asks the Court to declare Defendants’ approval of Missouri’s nutrients standards arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law, and to order Defendants to disapprove Missouri’s nutrients standards submission and notify Missouri of the changes required to comply with the CWA.

JURISDICTION AND VENUE

10. This Court has jurisdiction over this action pursuant to 5 U.S.C. §§ 701-706, 28 U.S.C. § 1331, 28 U.S.C. § 2201(a), 28 U.S.C. § 2202. The Plaintiff is challenging a final agency action as defined by the APA. 5 U.S.C. § 551(13).

11. This Court is also the proper venue for this action because a “substantial part of the events or omissions giving rise to this claim” occurred in this district, 28 U.S.C. § 1391(e)(1), and because the claim for relief arose in this division, Local Rule 3.2(b)(2).

PARTIES

12. The Plaintiff in this action is the Missouri Coalition for the Environment Foundation (“MCE”), a non-profit corporation with its principal office at 3115 S. Grand Blvd., Ste. 650, St. Louis, MO 63130. Founded in 1969, MCE works to protect and enhance a broad range of environmental values through education, public engagement, and legal action. Throughout its existence, MCE has actively engaged in efforts to preserve Missouri’s waterways.

13. MCE is a state-wide membership organization, with approximately 800 individual members. Its members engage in various recreational activities in and on lakes and other waters

throughout the state of Missouri, including, but not limited to, swimming, fishing, kayaking, and canoeing.

14. MCE files this action on its own behalf and on behalf of its members. The interests of the Coalition, as well as the interests of its members, have been, and will continue to be, adversely affected by EPA's approval of MDNR's nutrients standards for Missouri lakes that are not in compliance with the CWA. All Missourians, including MCE members, are subjected to and will be subjected to unhealthy lake conditions due to excessive levels of nutrients in the state's waters because of EPA's failure to ensure compliance with the CWA.

15. MCE is adversely affected and aggrieved by the actions of EPA. The excessive nutrients in the waters of Missouri permitted by EPA's approval is a concrete injury against MCE and its members, is fairly traceable to the EPA's conduct, and would be redressed by the relief sought in this case. Given the nature of the violation, the Plaintiff has no other remedy at law.

16. Defendant Andrew R. Wheeler is the Administrator of the United States Environmental Protection Agency. He is sued in his official capacity as Administrator.

FEDERAL STATUTORY AND REGULATORY BACKGROUND

17. Enacted in 1972, the CWA requires the states to enact WQS for all navigable waters that "protect the public health or welfare, enhance the quality of water and serve the purposes of [the Act.]" CWA § 303(c)(2)(A).

18. Sections 101(a)(2) and 303(c) define what it means for WQS to "serve the purposes" of the CWA. 40 C.F.R. § 130.3. WQS shall "protect the public health or welfare" and "enhance the quality of water." CWA, § 303(c).

19. Section 101(a)(2) of the CWA established as a national goal that "wherever attainable" water quality in the United States must "provide[] for the protection and propagation of fish, shellfish, and wildlife and ... for recreation in and on the water." CWA § 101(a)(2).

20. These WQS must include three elements: (1) one or more designated “uses” for each water body; (2) water quality “criteria,” expressed in numeric or narrative form, specifying the amount of each pollutant that may be present in those waters while preserving the designated uses; and (3) an antidegradation policy with implementation procedures to protect the current quality of the waters and all their existing uses. CWA §§ 303(c)(2) and (d)(4)(B); 40 C.F.R. Part 131, Subpart B.

21. For waters with more than one designated use, the criteria must protect the most sensitive use of the water. 40 C.F.R. § 131.11(a)(1).

22. All states are required to review and if necessary, revise, their WQS at least once every three years, in a “triennial review.” Results of this review must be made available to EPA. CWA § 303(c)(1).

23. States must hold one or more public hearings when reviewing and when revising WQS. These public hearings must comply with applicable state law, as well as EPA regulations. 40 C.F.R. 131.20(b).

24. Any “proposed water quality standards and supporting analyses shall be made available to the public prior to the hearing.” 40 C.F.R. 131.20(b).

25. Any new or revised WQS must be submitted to EPA for review. CWA § 303(c)(2)(A).

26. EPA has the responsibility and authority to ensure each state’s WQS comply with the CWA. CWA § 303(c)(3); 40 C.F.R. § 131.5.

27. EPA’s review of a state’s WQS must include an approval or disapproval of each WQS. CWA § 303(c)(3); 40 C.F.R. § 131.5(a).

28. EPA, when deciding whether to approve or disapprove of a WQS must make these determinations: “(2) Whether the State has adopted criteria that protect the designated water uses

based on sound scientific rationale consistent with § 131.11;” and “(6) Whether the State has followed applicable legal procedures for revising or adopting standards.” 40 C.F.R. §§ 131.5(a)(2, 6).

29. If criteria are expressed numerically, EPA must ensure the criteria are based on “304(a) Guidance,” “304(a) Guidance modified to reflect site-specific conditions,” or “other scientifically defensible methods.” 40 C.F.R. § 131.11(b)(1)(i-iii).

30. “In designating ... appropriate criteria ... the State shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.” 40 C.F.R. § 131.10(b).

31. If EPA determines that the WQS meet the requirements of the CWA, it must approve the standards within 60 days. The submitted WQS then become the effective WQS for the state. CWA § 303(c)(3).

32. If EPA determines that submitted standards do not meet the requirements of the CWA, within 90 days, it must notify the state of the changes required to bring the standards into compliance with the CWA. CWA § 303(c)(3).

STATE STATUTORY AND REGULATORY BACKGROUND

33. In Missouri, the Missouri Clean Water Commission (“MCWC”), a seven-member citizen commission, has the authority and responsibility under state law of promulgating and approving Missouri’s WQS. Mo. Ann. Stat. § 644.026.1(7) (West 2014).

34. MDNR, under the supervision of the MCWC, has the responsibility of implementing and enforcing the WQS.

35. No rule shall be adopted in Missouri without the agency having first filed with the

Secretary of State a notice of proposed rulemaking and final order of rulemaking, to be published in the Missouri Register. Mo. Ann. Stat. § 536.021.1 (West 2004).

36. The publication must include the proposed rule in its entirety, or if complete publication is not feasible, a complete copy must be made available upon request. Mo. Ann. Stat. § 536.021.1(3) (West 2004).

37. This publication shall also include notice to the public that comments regarding the proposed rule may be made. Mo. Ann. Stat. § 536.021.1(5) (West 2004).

38. In Missouri, WQS cannot be adopted except after a public hearing. Mo. Ann. Stat. § 644.036.1 (West 2014).

39. Missouri law requires that “copies of the proposed standard, rule or regulation or any amendment or repeal thereof shall” be mailed to those persons who had timely registered to receive such documents with the director of MDNR. Mo. Ann. Stat. § 644.036.1 (West 2014).

40. Missouri’s proposed WQS must be approved in writing by at least four members of MCWC before they take effect. Mo. Ann. Stat. § 644.036.3 (West 2014).

STATEMENT OF FACTS

THE PRIOR LITIGATION

41. As part of the triennial review process, Missouri developed nutrients and chlorophyll-a water quality criteria for lakes, which were developed to protect the designated uses of recreation (“whole body contact” or “WBC”) and protection of aquatic life (“AQL”). These criteria were submitted to the Regional Administrator of EPA during the week ending November 6, 2009.

42. In a letter dated August 16, 2011, EPA disapproved the nutrients and chlorophyll-a criteria, except for site specific criteria pertaining to twenty-five lakes.

43. EPA gave two reasons for its disapproval. First, the methods Missouri used and

analyses it conducted to develop the lake nutrient criteria were not based on a sound scientific rationale. Second, Missouri failed to demonstrate that the values or approaches used by Missouri in promulgating the nutrient criteria for lakes would protect the designated aquatic life or recreational uses. 40 C.F.R. §§ 131.6(b)-(c).

44. Neither Missouri nor EPA promulgated new nutrient standards within the time period prescribed by the Clean Water Act. CWA § 303(c)(3).

45. In February 2016, MCE sued EPA to compel it to implement numeric nutrient criteria for lakes consistent with the changes specified in the disapproval letter. That case was settled at the end of 2016 through a Consent Decree.

46. In the decree, EPA agreed to promulgate a proposed rule by December 15, 2017, and a final rule by December 15, 2018. The decree also provided that if MDNR finalized a rule and if EPA approved the rule before either date, EPA would be relieved of its duty to promulgate.

DEVELOPMENT OF THE CURRENT NUTRIENTS WATER QUALITY STANDARDS

47. In September 2015, MDNR developed draft nutrient standards for lakes.

48. After analyzing the draft standards, EPA, on May 12, 2016, informed MDNR in writing that they would not satisfy the requirements of the CWA.

49. EPA pointed to several deficiencies in the draft standard related to the failure of the standard to define numeric nutrients criteria.

50. First, the standards' use of screening thresholds instead of numeric criteria only identified waters already needing restoration and so did "little" to protect the existing uses of the water.

51. Further, terms in the draft standard were qualitative and open to "differing interpretations," so the screening threshold approach offered no protection beyond the

longstanding narrative criteria.

52. EPA asked MDNR if it would define the qualitative terms “in conjunction with the upcoming rulemaking.”

53. Second, EPA stated in the May 2016 letter that the variability of the relationship between nutrient concentrations and biological effects was an inadequate reason for MDNR to avoid developing numeric criteria for TP and TN because statistical procedures could account for such variability and allow for the development of useful numeric criteria, which “many other states” had previously done.

54. Third, MDNR had failed to demonstrate that the chlorophyll-a criteria would protect the uses that MDNR stated it was interested in protecting, which were drinking water supply (“DWS”), WBC, and AQL.

55. For Missouri to be able to demonstrate that the criteria were protective of DWS, EPA asked in the May 2016 letter that MDNR provide scientific reports that addressed the impact of eutrophication on several aspects of drinking water quality, as well as the impact of toxins resulting from eutrophication on the human subpopulation of children under six years of age.

56. EPA also indicated that protection of sport fish, perhaps at the expense of other aquatic biota, may not protect a wide variety of warm water biota.

57. In October 2017, initiated the formal rulemaking by formally publishing final draft nutrients standards. The standards were largely the same as the draft from September 2015, which EPA had previously indicated would not satisfy the CWA.

58. MCE objected to the rule in written comments, pointing out its legal shortcomings. MCE also testified at the public hearing on November 21, 2017.

59. As it seemed apparent that MDNR would not meet the December 15, 2017 deadline

for promulgation and approval of the proposed standards, EPA sought to be relieved of its obligations under the Consent Decree.

60. The court denied EPA's motion, and on December 15, EPA announced a Notice of Proposed Rulemaking, publishing the Notice in the Federal Register on December 27, 2017.

61. EPA proposed two alternatives for nutrients criteria. Neither alternative used the numeric nutrient criteria approaches EPA advocated for in its May 2016 letter. One of the alternatives was to adopt Missouri's proposed nutrient standards, and the other alternative also utilized a screening thresholds approach. This represented a complete repudiation of EPA's earlier public announcements such as the May 2016 letter.

62. While EPA's proposal was open for public notice and comment, MDNR finalized its nutrient standards. Missouri sent the standard to EPA for review in April 2018.

63. In July 2018, MDNR sent EPA a document supplementing its WQS submission, an Implementation Plan, which further detailed the WQS, as well as explaining how the non-numeric biological assessment endpoints could be utilized in development of NPDES permits.

64. The Implementation Plan was not published in the Missouri Register as part of the proposed rulemaking in October 2017, was not made available for public comment during the public comment period in October and November 2017, was not available to the public prior to the public hearing on November 22, 2017, and was not adopted in writing by the MCWC along with the rest of the nutrients standards in January 2018.

MISSOURI'S WATER QUALITY STANDARDS FOR NUTRIENTS

65. In its approved WQS, Missouri relied on what it called a "combined criteria approach" to determining the allowable concentration of nutrients in its lakes. Mo. Code Regs. Ann. tit. 10, § 20-7.031(5)(N)(1)(C)(1) (2019).

66. Missouri set numeric criteria for chlorophyll-a, establishing them for three ecoregions within the state, Plains, Ozark Border, and Ozark Highlands. It refers to the criteria as “Response impairment thresholds.”

67. Chlorophyll-a is not a pollutant, but a response indicator because it is a measure of the biological response to the introduction of nutrients into the waters and not a measure of the introduction of the nutrients (the causal indicators) themselves.

68. TN and TP are considered pollutants and are causal indicators because they are measures of the nutrients themselves. The introduction of these nutrients into waters cause the biological responses that are measured by response variables including chlorophyll-a.

69. However, instead of setting numeric criteria for TN and TP, Missouri established what it called “screening thresholds” for these pollutants, as well as a screening threshold for chlorophyll-a that is lower than the response impairment threshold for the same parameter. Mo. Code Regs. Ann. tit. 10, § 20-7.031(5)(N) (2019).

70. Below is a chart containing Missouri’s stadards:

Lake Ecoregion	Chlorophyll-a Response Impairment Threshold	Total Nitrogen Screening Threshold	Total Phosphorus Screening Threshold	Chlorophyll-a Screening Threshold
Ozark Highlands	15 µg/L	401 µg/L	16 µg/L	6 µg/L
Ozark Border	22 µg/L	733 µg/L	40 µg/L	13 µg/L
Plains	30 µg/L	843 µg/L	49 µg/L	18 µg/L

71. A lake in Missouri that is subject to these WQS can fall into one of three categories—impaired, not impaired, and those in a gray zone that require further evaluation.

72. Any lake with chlorophyll-a values above the chlorophyll-a response impairment threshold for its region would be considered impaired. Mo. Code Regs. Ann. tit. 10, § 20-

7.031(5)(N)(5) (2019).

73. Any lake with values of total nitrogen, total phosphorus, and chlorophyll-a below the screening thresholds is considered not impaired.

74. Waters with values below the chlorophyll-a response impairment threshold, but above the screening threshold value for any parameter, are considered to be in a “gray zone” and require further evaluation under the system that Missouri has adopted. Waters that fall in this gray zone receive further evaluation using a series of biological assessment endpoints, which are water conditions that indicate impairment. Like chlorophyll-a, the biological assessment endpoints are not pollutants, but are response indicators that appear after the water has been polluted.

75. These biological assessment endpoints, as codified in the Code of State Regulations, are:

- A. Occurrence of eutrophication-related mortality or morbidity events for fish and other aquatic organisms;
- B. Epilimnetic excursions from dissolved oxygen or pH criteria;
- C. Cyanobacteria counts in excess of one hundred thousand (100,000) cells per milliliter (cells/mL);
- D. Observed shifts in aquatic diversity attributed to eutrophication; and
- E. Excessive levels of mineral turbidity that consistently limit algal productivity during the period May 1 – September 30.

Mo. Code Regs. Ann. tit. 10, § 20-7.031(5)(N)(6)(A-E) (2019).

76. If a lake exceeds its screening value threshold, Missouri will determine whether any of the biological assessment endpoints were also detected during the same year that the screening threshold was exceeded. If the screening threshold was exceeded and a biological assessment endpoint was violated in the same year, the water will be classified as impaired.

77. Although the biological assessment endpoints are contained in the Code of State Regulations, further description and clarification of these biological assessment endpoints is contained in the Implementation Plan which is not part of the state administrative code.

78. The WQS are purportedly designed to ensure compliance with the AQL use assigned to some Missouri lakes. Missouri's WQS do not contain numeric criteria specifically intended to protect other uses assigned to Missouri lakes, such as DWS or WBC.

79. Missouri presumed that the AQL use was the most sensitive use assigned to its lakes, and so AQL is the use that the criteria are designed to protect.

80. This presumption was based on preliminary efforts to develop a numeric chlorophyll-a criterion that would be protective of the DWS use. The draft DWS-protective criterion was 25 µg/L. Because this 25 µg/L value was higher than the AQL-protective chlorophyll-a criterion for two out of the three regions, and "only 5 µg/L less than the recommended AQL threshold value for the Plains region," Missouri reasoned, without scientific evidence, that although the final AQL standard was 5 µg/L less than the proposed DWS standard, it was close enough to also be protective of drinking water.

81. In addition, Missouri has defined the AQL use as "protection of a wide variety of [warm, cool, or cold]-water biota." Mo. Code Regs. Ann. tit. 10, § 20-7.031(1)(C)(1)(A) (2019). However, Missouri claimed that the health of sport fish populations can serve as a proxy for the presence of a wide variety of aquatic biota. Therefore, in developing nutrient standards, Missouri looked only at the health of the sport fish population.

EPA APPROVAL OF MISSOURI WATER QUALITY STANDARDS FOR NUTRIENTS

82. On December 14, 2018, EPA approved Missouri's WQS for nutrients, described above in paragraphs 65-81.

83. In its decision document, EPA noted that Missouri had initially developed a 25 µg/L criterion to protect a DWS use of waters. However, in contrast to its earlier, well-documented position, EPA further explained that it accepted Missouri's contention that the science regarding protection of DWS and WBC uses of Missouri lake waters using numeric nutrients criteria was

too uncertain to allow for the creation of numeric nutrients criteria to protect those uses.

84. In determining whether Missouri's nutrients criteria protected the most sensitive use, EPA determined that Missouri need not develop numeric criteria to protect DWS or WBC uses because it was unclear which use was the most sensitive use. EPA determined Missouri's focus on protecting the AQL use only was reasonable.

85. Although EPA had spent more than 10 years attempting to persuade Missouri to enact numeric criteria to protect specific uses, EPA indicated that it now believed that the longstanding narrative criteria used by Missouri were sufficient to protect DWS and WBC uses.

86. Although EPA stated in the decision document that it requires that "all causal and response parameters should be expressed numerically" in a combined criterion approach," such as the approach developed by Missouri, EPA relied on MDNR's Implementation Plan, which is not part of the rulemaking, in order to deem the standards sufficiently numeric, so that it could approve Missouri's nutrients standards submission.

87. For example, regarding Missouri's biological assessment endpoints, EPA stated: "Each of MDNR's Response Assessment Endpoints are quantitative in some respect if the further articulation in MDNR's Implementation Plan is considered, except for observed shifts in aquatic diversity, which is not conducive to quantification at this point." Only because the Implementation Plan clarified the unambiguously non-numeric biological assessment endpoints did EPA consider them "quantitative in some respect," which was sufficient to meet the numeric expression requirement for Missouri's combined criterion approach.

88. EPA approved the duration and frequency of assessment using the nutrient screening thresholds and biological assessment endpoints to address "[s]horter term impacts (i.e. those manifesting themselves in a single year)," because these standards "have a one-year duration and

frequency and are to be evaluated within the same year.”

89. However, Missouri’s WQS do not anticipate action to remediate any short-term impacts within any single year, as EPA’s approval document suggests. The Missouri WQS states that a determination whether waters are impaired based on all the above nutrient criteria will be made every two years, “during the biennial assessment of Missouri waters.” Mo. Code Regs. Ann. tit. 10, § 20-7.031(N)(6) (2019).

COUNT ONE: APA

90. Plaintiff re-alleges all preceding paragraphs.

91. The APA grants judicial review of final agency actions, findings, and conclusions. It requires courts to set aside actions, findings, and conclusions that are “arbitrary, capricious an abuse of discretion, or otherwise not in the accordance with the law.” 5 U.S.C. § 706(2)(A).

92. The Defendants’ December 14, 2018 decision approving Missouri’s nutrient standards was a final agency action.

93. EPA’s December 14, 2018 approval of Missouri’s nutrient standards is arbitrary, capricious, an abuse of its discretion, and otherwise not in the accordance with the CWA or the APA.

94. MCE and its members are adversely affected and aggrieved by EPA’s final agency action in approving Missouri’s nutrients standards.

95. Because EPA’s approval is arbitrary, capricious, and contrary to law, it must be set aside.

96. Injunctive relief is proper because MCE and its members have no other adequate remedy at law.

PRAYER FOR RELIEF

WHEREFORE Missouri Coalition for the Environment prays for the following relief:

- (1) A declaratory judgment finding that Defendants abused their discretion and acted contrary to law in approving Missouri's 2018 nutrients WQS for lakes because the WQS are inconsistent with and fail to meet the requirements of the CWA;
- (2) An injunction setting aside EPA's approval of Missouri's 2018 nutrients WQS;
- (3) An award of litigation costs, including reasonable attorney and expert witness fees, under 28 U.S.C. § 2412;
- (4) Any other relief this Court deems just and proper.

Respectfully submitted,

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