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Upper Missouri Waterkeeper v. EPA

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Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency, 15 F.4th 966 (9th Cir. 2021)

Clare Ols*

I. INTRODUCTION

Nutrient pollution is a leading cause of environmental degradation in the United States, causing algal blooms that harm fisheries, decrease water quality, and threaten human health.[1] The Environmental Protection Agency ("EPA") estimates that over 30% of streams in the United States are impaired by nutrient pollution;[2] in Montana alone, more than 7,200 of the state's 59,000 river miles are impaired.[3] Further, environmental impacts of nutrient pollution are often disproportionately experienced by low-income communities, who lack the administrative and financial capacity to make the infrastructure improvements necessary to treat these pervasive pollutants.[4] Wastewater treatment plants are significant nutrient dischargers, since conventional treatment techonology was not designed to remove nitrogen or phosphorus.[5] Although these facilities are subject to EPA permitting and state water quality standards, the scope and pervasive nature of nutrient pollution often necessitate the implementation of new or advanced treatment technologies that may not be required under either regulatory framework.[6]

EPA regulates water pollution, including nutrient discharges, under the Clean Water Act ("CWA"), which requires states to develop water quality standards ("WQS") for pollutants.[7] The CWA also permits EPA to grant variances to state WQS if a state demonstrates that it is not feasible for a specific discharger or waterbody to attain compliance with WQS.[8]

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1. U.S. Env't Prot. Agency, *The Issue*, NUTRIENT POLLUTION (last updated Sept. 22, 2021), https://perma.cc/7P75-5N8R.
2. U.S. Env't Prot. Agency, *Where this Occurs*, NUTRIENT POLLUTION (last updated Sept. 22, 2021), https://perma.cc/FBY9-PK9R.
3. MONT. DEP'T OF ENV'T QUALITY, Montana 2020 Final Water Quality Integrated Report, https://perma.cc/NFT3-3JBL (April 2021).
4. Laurel A. Schaider et al., *Environmental justice and drinking water quality: are there socioeconomic disparities in nitrate levels in U.S. drinking water?*, 18 ENV'T HEALTH 3, 2 (2019), doi.org/10.1186/s12940-018-0442-6.
5. How Wastewater Treatment Works…The Basic, EPA No. 833-F-98-002 (U.S. Env't Prot. Agency 1998), https://perma.cc/E9PV-U9DC.
6. *Id*.
7. Water Quality Standards Regulatory Clarifications, 78 Fed. Reg. 54518, 54531 (Sept. 4, 2013).
8. *Id*.

In 2017, EPA granted the Montana Department of Environmental Quality ("DEQ") a variance to the state's nutrient pollutant WQS for public wastewater treatment facilities.[9] The variance allowed the facilities a specific period of time to discharge nitrogen and phosphorus at greater concentrations than would be permitted under the base standards because immediate compliance with those standards was economically infeasible.[10] In granting the variance, EPA relied on evidence provided by DEQ that the cost of implementing wastewater treatment techonology necessary for the facility to comply with base WQS result in "substantial and widespread economic and social impact" on the affected communities.[11]

Upper Missouri Waterkeeper ("Waterkeeper") filed suit in U.S. District Court for the District of Montana, challenging EPA's approval of the nutrient pollutant variance.[12] Waterkeeper alleged EPA violated the CWA because: (1) the CWA prohibits EPA from considering compliance cost when approving variances to base WQS; and (2) EPA arbitrarily and capriciously approved Montana's nutrient pollutant variance because the variance does not require compliance with base WQS at the end of the term, nor with the interim variance standard at the outset of the term, and therefore replaces base WQS.[13] The district court held that: (1) the CWA permits EPA to grant variances based on the economic impact of compliance; and (2) EPA arbitrarily and capriciously approved Montana's nutrient pollutant variance because the variance does not require WQS compliance by the end of the variance term.[14] On appeal, the United States Court of Appeals for the Ninth Circuit affirmed the district court's holding on the first issue and reversed its holding on the second.[15]

This case note will analyze the Ninth Circuit's reasoning in *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*,[16] and the impact of its holding on state WQS and applications for variances in the future. In particular, the note will assess how the decision may erode the purpose of the CWA by incentizing states to engage in a water quality race-to-the-bottom and sacrifice improvements in the name of cost. By allowing states to justify failing to meet their WQS based on the cost of complying with those standards, EPA fails to protect aquatic habitat, while

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9. First Brief on Cross-Appeal for Defendant U.S. Environmental Protection Agency 8, *Upper Mo. Waterkeeper v. U.S. Env't Prot. Agency*, 15 F.4th 966 (9th Cir. 2021) (No. 20-35136).

10. *Id*.

11. Upper Mo. Waterkeeper v. U.S. Env't Prot. Agency, 15 F.4th 966, 970 (9th Cir. 2021).

12. First Amended Complaint for Declaratory & Injunctive Relief ¶¶ 40–56, *Upper Mo. Waterkeeper v. U.S. Env't Prot. Agency*, 377 F. Supp. 3d 1156 (D. Mont.) (No. 4:16-cv-00052-BMM).

13. *Id*.

14. Upper Mo. Waterkeeper v. U.S. Env't Prot. Agency, 377 F. Supp. 3d 1156, 1166 (D. Mont. 2019) (No. 4:16-cv-00052-BMM).

15. *Waterkeeper*, 15 F.4th at 974–75.

16. *Id*. at 970.

exposing low-income communities to degraded water resources and human health risks.

II. LEGAL & REGULATORY BACKGROUND

A. Nutrient Pollution

Nitrogen and phosphorus are naturally occurring nutrients essential to plant growth and aquatic life.[17] However, excess concentrations of nitrogen and phosphorus over-stimulate microorganism and algal growth in waterbodies, resulting in cyanobacteria algal blooms.[18] These algal blooms reduce dissolved oxygen, increase sedimentation, and produce toxins harmful to aquatic species, wildlife, and humans.[19] In particular, the algal blooms caused by nutrient pollutants create hypoxic dead-zones with little-to-no oxygen, in which aquatic organisms cannot survive.[20] In humans, exposure to these algal blooms can impact skin, intestinal, respiratory, and neurologic systems.[21] Further, exposure to nutrient pollutants in drinking water, particularly nitrates, is hazardous to human health and has been linked to increased cancer rates, birth defects, thyroid dysfunction, and methemoglobinemia in infants.[22]

Nitrogen and phosphorus enter waterbodies from numerous sources, including agricultural waste and fertilizer runoff, stormwater, and inadequately treated wastewater.[23] These pollutants act cumulatively and can remain in waterbodies even after the original source of pollution is removed, causing long-term damage.[24] Further, nutrients first ingested by fish or other aquatic animals bioaccumulate through the food chain to harm birds, turtles, and other large animals.[25]

Beyond their negative environmental effects, nutrient pollutants also cause significant economic and social harm. In the U.S., degraded waterbodies cost the national tourism industry more than $1 billion each year and commercial fishing tens of millions of dollars because polluted and impaired waterbodies are unable to support recreation and industrial

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17. Clark Fork Coal., *Nutrient Monitoring*, WHAT WE DO, https://perma.cc/73U7-C2T5 (last visited Feb. 12, 2022).

18. *Nutrient Pollution: The Issue*, *supra* note 1.

19. *Id.*

20. U.S. Env't Prot. Agency, *Environmental*, NUTRIENT POLLUTION (last updated Mar. 1, 2021), https://perma.cc/L3YA-6HVG.

21. U.S. Env't Prot. Agency, *Human Health*, NUTRIENT POLLUTION (last updated Mar. 1, 2021), https://perma.cc/UV6C-94QJ.

22. Schaider, *supra* note 4, at 2–3.

23. U.S. Env't Prot. Agency, *Sources and Solutions*, NUTRIENT POLLUTION (last updated Aug. 31, 2021), https://perma.cc/UV6C-94QJ.

24. First Amended Complaint for Declaratory & Injunctive Relief, *supra* note 12, ¶ 20.

25. *Nutrient Pollution: Effects: Environmental*, *supra* note 20.

uses.[26] Further, treatment of nitrogen and phosphorus significantly raises the cost of public water treatment, particularly in rural and tribal communities that are already exposed to increased environmental contamination as the result of outdated and inadequate infrastructure.[27] As the governing federal statute for reducing water pollution in the U.S., the CWA often serves as a critical line of defense to these pollution challenges.

B. Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act of 1948 to create the CWA, with the purpose of restoring and maintaining the chemical, physical, and biological integrity of the waters of the U.S..[28] To further this objective, the CWA requires states to establish WQS, which serve as both specific water quality goals and the regulatory basis for the state's water treatment and techonology.[29] EPA regulations provide that, "wherever attainable," WQS should be established at the water quality necessary for the protection and propagation of fish, shellfish, and wildlife, as well as recreation values.[30] Further, WQS must also consider the use and value of public water supplies, propagation of fish and wildlife, recreation, agricultural and industrial use, and other purposes, including navigation.[31]

WQS are comprised of the following elements: (1) designated uses for each waterbody; (2) water quality criteria necessary to protect those uses; (3) an antidegradation policy; (4) state certification; and (5) supporting scientific and regulatory rationale.[32] States must submit proposed WQS to the EPA Administrator for approval based on whether the designated use supports CWA objectives, whether water quality criteria to protect the designated use are science-based, and whether the state has followed statutory procedure in establishing the standard.[33] Once approved, WQS become the applicable standards for the state.[34] States are required to review and, if appropriate, modify WQS at least once every three years.[35]

Under the WQS regulatory framework, states may seek EPA approval to adopt discharger- or waterbody-specific WQS variances on the

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26. U.S. Env't Prot. Agency, *Effects*, NUTRIENT POLLUTION (last updated Aug. 31, 2021), https://perma.cc/SC8T-96Z7.

27. *Nutrient Pollution: Sources and Solutions*, *supra* note 23; Strengthening the Nation-to-Nation Relationship with Tribes to Secure a Sustainable Water Future, EPA No. 823-F-21-003 (U.S. Env't Prot. Agency 2021), https://perma.cc/M9SS-GNSE.

28. 33 U.S.C. § 1251(a) (2018); 40 C.F.R. § 131.2 (2022).

29. 40 C.F.R. § 131.2.

30. *Id.*

31. *Id.*

32. *Id.* § 131.6.

33. *Id.* § 131.5(a).

34. 33 U.S.C. § 1313(c)(3).

35. 40 C.F.R. § 131.20.

basis that it is not feasible for the discharger or waterbody to achieve the state's WQS designated use and criterion for a certain pollutant.[36] EPA defines WQS variances as "time-limited designated use and criterion for specific pollutants or water quality parameters" that must reflect the highest attainable condition achievable during the term of the variance.[37] Because WQS variances regulate specified pollutants for only the dischargers or waterbodies under the variance, base WQS are retained for all other standards not specifically addressed by the variance for those affected waters.[38] WQS for unaffected waters are not impacted.[39] EPA may only approve variances supported by evidence demonstrating the infeasibility of base WQS attainment, length of the variance, and applicable discharger- or waterbody-specific requirements.[40]

Under EPA's WQS variance regulations, a state can show that attaining base WQS designated use and criterion may not be feasible for a specific discharger or waterbody when one of the following occurs: (1) naturally occurring pollutant concentrations prevent attainment; (2) natural low flows prevent attainment; (3) human caused conditions prevent attainment, if correcting those conditions would cause more damage than leaving them in place; (4) man-made hydrologic modifications such as dams or diversions prevent attainment, and it is not feasible to restore the waterbody's original condition; (5) physical conditions unrelated to water quality prevent attainment; or (6) more stringent pollutant controls would result in substantial and widespread economic and social impact.[41] When submitting WQS variance requests, states are required to submit evidence demonstrating that base WQS attainment is not feasible and that the proposed variance to base standards represents the highest condition attainable.[42]

States also must show that the proposed term of the WQS variance is only as long as necessary to achieve the highest attainable condition, which is defined as the use that is both closest to the base WQS designated use and actually attainable.[43] In waterbody-specific variances, highest attainable condition is defined as the highest attainable interim water quality criterion.[44] For a discharger-specific variance, the highest attainable condition must reflect: (1) the highest attainable interim criterion; (2) the discharger's greatest achieveable pollutant reduction with additional feasible technology; or (3) the discharger's greatest achievable

36. *Id.* § 131.14.
37. *Id.* § 131.3(o).
38. *Id.*
39. *Id.* § 131.14(b)(1).
40. *Id.*
41. *Id.* § 131.10(g).
42. *Id.* § 131.
43. *Id.* § 131.3(m).
44. *Id.* § 131.14.

pollutant reduction using its current technology and any additional pollution mitigation.[45]

Upon EPA approval, WQS variances provide the new applicable pollution standards for the dischargers or waterbodies identified in the variance request at both the state and federal level, including National Pollution Discharge Elimination System ("NPDES") discharge requirements and 401 Certification.[46]

III. FACTUAL & PROCEDURAL BACKGROUND

In 2014, DEQ developed WQS to regulate nitrogen and phosphorus pollution in large river segments and "wadeable streams"[47] to protect the designated uses of those waterbodies and reduce other impacts to water quality such as changes in pH and dissolved oxygen.[48] These standards, titled Circular DEQ-12A, restricted nitrogen to a range of 275–1,300 μ/L, dependent on geographic region of the waterbody, and phosphorus to 25–150 μ/L, also dependent on waterbody region.[49] DEQ developed the WQS criterion based on significant research and water quality sampling to determine the concentration limitations necessary to protect designated use.[50]

Concurrently with the nutrient WQS, DEQ also developed a discharger-specific nutrient pollutant variance, titled Circular DEQ-12B, to the base WQS because the agency concluded that the technology needed to attain wadeable stream WQS compliance for nitrogen and phosphorus would be too cost-prohibitive and thus not feasible for certain dischargers to implement.[51] Circular DEQ-12B set nitrogen limits at either (1) 10,000 μg/L total nitrogen and 1,000 μg/L total phosphorus, or (2) 15,000 μg/L total nitrogen and 2,000 μg/L total phosphorus, depending on the discharger.[52] DEQ identified 36 public wastewater treatment centers as dischargers under the variance,[53] on the basis that compliance with base WQS for nutrient pollutants would have a greater than 2% impact on median household incomes in the community.[54]

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45. *Id*.

46. *Id*. § 131.14(c).

47. Wadeable streams are defined as perennial or intermittent streams that may be safely waded by a person during baseflow conditions. Montana Base Numeric Nutrient Standards, Circular DEQ-12A, 1 (2014), https://perma.cc/6TX5-82HF.

48. *Id*.

49. *Id*.

50. *Id*.

51. Nutrient Standards Variances, Circular DEQ-12B, 1 (2019), https://perma.cc/DA65-LQYB.

52 . First Amended Complaint for Declaratory & Injunctive Relief, *supra* note 12, ¶ 33.

53. *Id*. ¶ 43.

54. Upper Mo. Waterkeeper v. EPA, 15 F.4th 966, 970 (9th Cir. 2021).

In 2015, EPA approved the base WQS for nutrient pollutants and the WQS variance proposed by DEQ.[55] EPA approved Circular DEQ-12B on evidence submitted by DEQ that implementing reverse osmosis—the control technology necessary to achieve base WQS compliance for nutrient pollutants—would have a "substantial and widespread economic impact" on affected communities.[56]

On May 31, 2016, Waterkeeper filed suit against EPA in the U.S. District Court for the District of Montana, challenging the agency's approval of the Circular DEQ-12B variance.[57] Treasure State Resources Association, the Montana League of Cities and Towns, and the National Association of Clean Water Agencies moved to intervene on behalf of Defendant EPA, and their motion was granted.[58]

In 2017, while the litigation was pending, DEQ amended Circular DEQ-12B to permit maximum discharges of (1) 6,000 μg/L total nitrogen and 300 μg/L total phosphorus for plants discharging greater than 1 million gallons per day, and (2) 10,000 μg/L nitrogen and 1,000 μg/L phosphorus for plants discharging less than 1 million gallons per day.[59] DEQ also decreased the variance term from 20 years to 17 years from the date of approval.[60] DEQ again requested and received EPA approval of the variance based on evidence that the cost of complying with base WQS for nitrogen and phosphorus would continue to negatively impact the economies of affected communities.[61] Waterkeeper amended its Complaint to reflect Amended Circular DEQ-12B on February 5, 2018, claiming that EPA's approval of Amended Circular DEQ-12B violated the CWA because (1) the CWA precludes the agency from considering compliance costs when approving variances to a state's base WQS, and (2) Amended Circular DEQ-12B impermissibly replaces Montana's base WQS because the variance only requires compliance with the highest attainable condition at the end of the 17-year variance term, rather than compliance with base standards.[62]

On cross-motions for summary judgment, the district court rejected Waterkeeper's compliance cost claim and held that EPA reasonably

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55. First Amended Complaint for Declaratory & Injunctive Relief, *supra* note 12, ¶¶ 30, 38, 41.

56. First Brief on Cross-Appeal for Defendant U.S. Environmental Protection Agency, *supra* note 9, at 18.

57. *Id*. at 14.

58. *Id*. at 55 n. 3.

59. Nutrient Standards Variances, Circular DEQ-12B, 3 (2019), https://perma.cc/DA65-LQYB.

60. First Brief on Cross-Appeal for Defendant U.S. Environmental Protection Agency, *supra* note 9, at 18.

61. *Id*,, *supra* note 9, at 13–15.

62. First Amended Complaint for Declaratory & Injunctive Relief, *supra* note 12, ¶ 43.

construed the CWA as permitting DEQ to grant variances based on economic impact of WQS compliance costs.[63] On Waterkeeper's highest attainable condition claim, the district court held that EPA's approval of Amended Circular DEQ-12B's 17-year term was arbitrary and capricious and violated the CWA because it did not require compliance with WQS at the end of the term, nor with the highest attainable condition at the outset of the term. [64] As such, the court partially vacated the agency's approval.[65]

Both Waterkeeper and EPA appealed the district court decision.[66] On appeal in the Ninth Circuit, Waterkeeper challenged the district court's conclusion that the CWA permits EPA to consider compliance costs when approving variance requests to state WQS.[67] EPA and intervenor-defendants challenged the district court's partial vacatur of EPA's approval of Amended Circular 12-B and asserted that the 17-year term does not violate variance regulations.[68]

IV. HOLDINGS

The Ninth Circuit affirmed the district court's decision in part, reversed in part, and remanded the case with instructions for judgment to be entered in favor of EPA and intervenor-defendants.[69] The court held that (1) EPA reasonably construed the CWA as authorizing the agency to consider compliance costs when approving WQS variances, and (2) EPA properly interpreted its variance regulations as requiring compliance with the highest attainable condition exclusively at the end of the variance term, consistent with the CWA statutory framework.[70]

V. REASONING & ANALYSIS

In reaching its holding, the Ninth Circuit employed two distinct analyses. First, the court utilized the framework set out in *Chevron U.S.A. Inc. v. Natural Resources Defense Council*[71] to determine whether the CWA grants EPA authority to approve a state's WQS variance request based on economic impact. Second, the court addressed whether EPA properly interpreted its variance regulation as being consistent with the CWA. In both analyses, the court centered its holding upon: (1) its own line of reasoning, and (2) the plain language of the CWA and EPA regulations. In doing so, the court left unanswered questions as to how it

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63. Upper Mo. Waterkeeper v. U.S. Env't Prot. Agency, 377 F. Supp. 3d 1156, 1166-70 (D. Mont. 2019) (No. 4:16-cv-00052-BMM).

64. *Id*. at 1171.

65. *Id*.

66. Upper Mo. Waterkeeper v. U.S. Env't Prot. Agency, 15 F.4th 966, 971 (9th Cir. 2021).

67. *Id*.

68. *Id*.

69. *Id*.

70. *Id*. at 975.

71. Chevron U.S.A. Inc. v. Nat. Res. Def. Council, 467 U.S. 837 (1984).

reached its findings in the context of existing CWA caselaw and how its holding will impact the regulatory framework under which western states develop WQS variances. These questions open a larger discussion about the practical implications of the court's holding, specifically whether permitting states to justify relaxed standards based on cost will subject low-income, environmental justice communities to increased water pollution and whether the EPA approved a WQS variance that fails to protect designated use and meet CWA objectives.

A. Compliance Cost Consideration

Before addressing the actual terms of Montana's nutrient pollutant variance, the Ninth Circuit was first tasked with the question of whether EPA had statutory authority under the CWA to approve the variance in the first place. Specifically, the court asked whether the CWA permits EPA approve a WQS variance based on the economic impact of WQS compliance on affected communities. In resolving this question of statutory interpretation, the court utilized the *Chevron* two-step analysis, first asking whether Congress had directly and unambiguously spoken to the issue of EPA's considering the "substantial and widespread economic and social impact"[72] of implementing pollution control technology necessary for a discharger to attain base WQS compliance when deciding whether to approve a variance request.[73] To determine Congressional intent, the court looked to the language of the CWA provision governing state WQS and variances to those standards, 33 U.S.C. § 1313(c)(2)(A).[74] Section 1313(c)(2)(A) requires WQS to "protect the public health or welfare, enhance the quality of water and serve the purposes of [the CWA]" and directs EPA to consider the use and value of state standards on public water supplies, fish and wildlife propagation, recreation, agriculture, industry, and other purposes, such as navigation.[75] Based on the plain language of the statute, the court concluded that Congress was silent as to whether EPA may consider the economic and social impact of base WQS compliance when approving variance requests.[76]

In finding that Congress was silent on the issue, the court rejected Waterkeeper's argument that, under *Whitman v. American Trucking Associations, Inc*.,[77] congressional silence on cost consideration should be inferred as a prohibiting consideration.[78] In *Whitman*, the U.S. Supreme Court ruled that Congress' refusal to address cost consideration in 42

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72. 40 C.F.R. § 131.10(g)(6).

73. Upper Mo. Waterkeeper v. U.S. Env't Prot. Agency, 15 F.4th 966, 966, 973 (9th Cir. 2021).

74. *Id*.

75. 33 U.S.C. § 1313(c)(2)(A).

76. *Waterkeeper*, 15 F.4th at 966, 973.

77. Whitman v. Am. Trucking Ass'n, 531 U.S. 457 (2001).

78. *Waterkeeper*, 15 F.4th at 973.

U.S.C. § 7409(1)(b)[79] of the Clean Air Act ("CAA") prohibits EPA from considering cost when setting primary ambient air quality standards, because other provisions in the statute, such as § 7545(k)(1)(A),[80] explicitly permit such consideration.[81] On this basis, the Supreme Court held that silence in CAA § 7409(1)(b) should be inferred as a prohibition.[82]

In response to Waterkeeper's invocation of *Whitman*, the court here contrasted CWA § 1313(c)(2)(A) with CAA § 7409(1)(b) and declined to draw inferences from the CWA under the *Whitman* framework.[83] The court ruled that the CWA lacks the explicit, permissive language related to economic considerations found in the CAA, and therefore, silence in CWA § 1313(c)(2)(A) could not be inferred as a prohibition on compliance cost consideration.[84] Instead, the court held that Congress's silence on EPA's consideration of compliance costs represented a delegation of discretionary authority to the agency regarding the use and scope of an economic impact analysis in variance approval.[85]

Having determined that Congress was silent on compliance cost consideration, the court turned to the second step of *Chevron*: whether EPA reasonably interpreted CWA § 1313(c)(2)(A) as permitting the agency to consider compliance costs when approving state WQS variance requests.[86] The court held that EPA's interpretation of the CWA was reasonable based on two CWA provisions: § 1313(c)(2)(A) and § 1251(a)(2).[87]

First, in a short line of reasoning, the court examined § 1313(c)(2)(A)'s requirement that WQS protect the "public welfare" and found that protecting public welfare "can be reasonably understood" as permitting EPA to consider whether the cost of WQS compliance would result in widespread and substantial social and economic impact.[88] The court did not explain this finding further.

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79. 42 U.S.C. § 7409(1)(b) requires EPA Administrator to set primary ambient air quality standards that "based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health."

80. *Id*. § 7545(k)(1)(A) requires EPA Administrator set requirements for reformulated gasoline vehicles in certain areas that reflect the greatest pollutant reduction achievable, "taking into consideration the cost of achieving such emissions reductions."

81. *Id.*

82. *Whitman*, 531 U.S. at 465.

83 . *Waterkeeper*, 14 F.4th at 973.

84. *Id*. (citing *Entergy Corp. v. Riverkeeper, Inc.*, in which the U.S. Supreme Court interpreted CWA § 1326(b) as permitting EPA to use a cost-benefit analysis in determining the best available technology to minimize environmental impacts of cooling water intake structures at power plants, because the statute "does not unambiguously preclude it" 556 U.S. 208, 220 (2009)).

85. *Id*.

86. *Id*. at 974.

87. *Id*.

88. *Id*.

Second, the court turned to CWA § 1251(a)(2), which provides the CWA's purpose that "wherever attainable…protection and propagation of fish, shellfish, and wildlife and…recreation" is achieved.[89] The court found that because § 1251(a)(2) does not define any attainability factors, Congress delegated discretionary authority to EPA to determine which factors to consider when determining if attaining a WQS is feasible.[90] Further, the court found that it is "more plausible" that Congress intended to include economic feasibility as an factor based on a broad meaning of the term "wherever attainable."[91] Interpreted broadly, the court ruled that attainability includes both technological and economic feasibility, and it was unlikely Congress would impose "financially ruinous" compliance costs on communities.[92]

Notably, the court cites limited external authority in reaching its holding, instead relying largely upon its own analysis. In particular, the court only briefly distinguishes what appears to be the most closely related precedent to Montana's nutrient pollutant variance at issue here, *Mississippi Commission on Natural Resources v. Costle*,[93] in a footnote.[94] In *Costle*, the Mississippi Commission on Natural Resources ("the Commission") challenged EPA's rejection of water quality criterion for the state's dissolved oxygen WQS and subsequent promulgation of the federal dissolved oxygen standard.[95] Like the nutrient pollutants at issue here, dissolved oxygen negatively impacts water quality and aquatic habitat, causing fish crowding and increased exposure to toxins and disease.[96] Specifically, the Commission alleged that EPA exceeded its authority under the CWA when it excluded economic impact in its development of the criterion.[97] The Commission's suit came after EPA rejected Mississippi's proposed dissolved oxygen criterion, which were developed with "public interest" as a factor, and instead required the state to adopt the federal standard, which did not include a public interest analysis.[98]

In determining whether EPA reasonably interpreted the CWA as prohibiting the agency from considering economic impact in the development of WQS water quality criterion, the Fifth Circuit in *Costle* found that CWA § 1313(c)(2)(A) distinguishes between the criteria EPA can consider in approving designated use versus water quality criteria when developing WQS.[99] Therefore, the court held that, under the plain language of the statute, economic impact may be only be considered when setting

89. *Id*.
90. *Id*.
91. *Id*.
92. *Id*.
93. Miss. Comm'n on Nat. Res. v. Costle, 625 F.2d 1269 (5th Cir. 1980).
94. *Waterkeeper*, 15 F.4th at 976 n.1.
95. *Costle*, 625 F.2d at 1269.
96. *Id*. at 1272–73.
97. Id. at 1272.
98. *Id*. at 1277.
99. *Id*.

the designated use of a waterbody, while water quality criteria must be established using only the "latest scientific knowledge."[100] *Costle* further held that "when Congress wanted economics and cost to be considered, it explicitly required it," as the U.S. Supreme Court held in *Whitman* and as Waterkeeper unsuccessfully argued here.[101]

Here, the Ninth Circuit's footnote does not explain its holding in the context of *Costle*, stating only that *Costle* holds no weight in the variance issue because *Costle* applies only to the establishment of WQS water quality criterion and not to WQS variances, which modify *both* water quality criteria and designated use.[102] The court here also fails to address the Fifth Circuit's opposite holding on the determination of inferred and explicit congressional intent in permitting the consideration of economic impact in the CWA, nor how that conclusion could have impacted the court's *Whitman* analysis. Further, the court does not explain how water quality criterion within a WQS variance are distinct from the variance itself, nor why approving a WQS variance based on economic impact does not affect the science-based rationale under which water criterion must be developed.

B. Variance Term

After addressing the CWA statutory permissions involved in resolving the issue of whether EPA may grant variances based on compliance cost, the Ninth Circuit turned to the second issue on appeal: whether Amended Circular DEQ-12B violates EPA regulations because it does not require dischargers to comply with the highest attainable nutrient pollutant condition at the outset of the term nor with base WQS at the end of the term.[103] Although Waterkeeper requested that the court apply *Kisor*[104] to determine whether the EPA regulations at issue were ambiguous, the court found that the plain language of the regulations was unambiguous, and therefore such an analysis was unnecessary.[105]

The Ninth Circuit based its finding on three provisions of EPA's variance regulations.[106] First, the court noted the language of 40 C.F.R. § 131.14(b)(2)(i)(A), which requires states seeking a WQS variance to demonstrate that attainment of base WQS designated use and criterion is

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100. *Id.*

101. *Id.*

102. Upper Mo. Waterkeeper v. U.S. Env't Prot. Agency, 15 F.4th 966, 976 n. 1 (9th Cir. 2021).

103. *Waterkeeper*, 15 F.4th at 974.

104. Under *Kisor v. Wilkie*, 139 S. Ct. 2400 (2019), a court reviewing an agency's interpretation of its own regulation presumes that Congress delegated discretionary authority to agencies to interpret their own regulations and will therefore defer to the agency's interpretation, unless unreasonable or contrary to statute. However, this deference only is only applied if the court finds the regulation genuinely ambiguous. If the regulation is not ambiguous, the court will interpret the regulation based on its plain-meaning and will not defer to the agency's interpretation.

105. *Waterkeeper*, 15 F.4th at 974.

106. *Id.* at 975.

not feasible.[107] Next, the court turned to § 131.14(b)(1)(ii), which provides that upon EPA approval, the variance replaces base WQS designated use and criterion for the variance term and that it represents the highest attainable for that term.[108] Finally, the court looked to § 131.14(b)(1)(iv), which limits the variance term to only "as long as necessary to achieve the highest attainable condition."[109]

Read together, the court ruled the regulations clearly provide that the purpose of an EPA-approved WQS variance is to grant a discharger a specific period of time to achieve the interim effluent limit laid out in the variance.[110] Therefore, the only permissible interpretation of the regulation is that compliance with the highest attainable condition is required by the *end* of the term, not at the outset or throughout.[111] The court reasoned that requiring a discharger to comply with either the variance's highest attainable condition at the outset or base WQS at the end of a term would negate purpose of a variance, because base WQS attainment would be feasible and there would be no basis upon which EPA could grant a variance.[112] Therefore, the court ruled that EPA properly interpreted its regulations when the agency approved Amended Circular DEQ-12B and its requirement that the highest attainable condition be met by the end of the 17-year variance term.[113]

However, in finding that EPA's variance regulations were unambiguous, the court did not address specifically *how* the plain language of the regulations is unambiguous. Section 131.14(b)(2)(i)(A) of the EPA's variance regulations, found by the district court as requiring compliance with the highest attainable condition at the beginning of the term, defines "water quality variance" as being a "time-limited designated use and criterion…that reflect the highest attainable condition during the term of the variance."[114] Similarly, § 131.14(b)(1)(ii) states that the variance must represent "the highest attainable condition…applicable throughout the term of the variance."[115] On their faces, both provisions suggest that a variance requires compliance with the highest attainable condition during the term of the variance—if not at its outset. Thus, the ambiguous plain meaning of the regulations calls into question the court's finding of unambiguity and raises the question of whether the finding would be different had the court applied *Kisor* and engaged in a "searching analysis" as to the existence of ambiguity.[116]

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107 40 C.F.R. § 131.14(b)(2)(i)(A).
108. *Id.* § 131.14(b)(1)(iii).
109. *Id.* § 131.14(b)(2)(ii).
110. *Waterkeeper*, 15 F.4th at 975.
111. *Id.*
112. *Id.* at 976.
113. *Id.*
114. 40 C.F.R. § 131.3(o).
115. *Id.* § 131.14(b)(1)(ii).
116. First Brief on Cross-Appeal & Response of Plaintiff-Appellee Upper Missouri Waterkeeper 16, *Upper Mo. Waterkeeper v. U.S. Env't Prot. Agency*, 15 F.4th 966 (9th Cir. 2021) (No. 20-35136).

Instead, the court's support for its holding rests on practical implications. The court writes that requiring achievement of the highest attainable condition at the end of the variance term still improves water quality, even if incrementally, and therefore does not conflict with CWA goals to restore and maintain water quality.[117] The court rejects Waterkeeper's argument that failure to require base WQS compliance at the end of the term will permit states to use variances to indefinitely postpone attaining base WQS compliance. The court instead held that the procedural safeguards in the variance approval process protect against practices.[118] However, the court does not address the contention that, even with procedural safeguards (e.g. public participation, facility-specific requirements, and EPA review), requiring compliance with the highest attainable condition only at the end of a variance term may slow progress towards eventual base WQS attainment. By granting dischargers more time to comply with base WQS, the court's decision may disincentivize dischargers from implementing more effective pollution control technologies within a shorter time frame, thus delaying progress towards eventual attainment of the base standards.

C. Regulatory Impacts

In Montana, Amended Circular DEQ-12B is no longer in effect. In 2021, the state legislature passed S.B. 358 repealing numeric WQS for nutrient pollutants.[119] In response, DEQ began the process of developing new narrative, rather than science-based numeric, standards to provide for an "incremental watershed" perspective to protecting water quality.[120] These standards have been largely criticized as a management, rather than preventative, approach to remedying nutrient pollution in Montana's waterbodies.[121] Critics further assert that the narrative standards will be insufficient to protect fisheries, wildlife, recreation, and human health because they fail to proactively set quantifiable limits on nutrient pollution.[122] DEQ published its preliminary narrative WQS on December 23, 2021, and began issuing permits under these standards despite EPA having not approved or disapproved the new standards.[123] In response, on March 24, 2022, Upper Missouri Waterkeeper again sued EPA in the U.S. District

117. *Waterkeeper*, 15 F.4th at 976.

118. *Id.*

119. MONT. CODE ANN. § 75-5-321 (2021).

120. MONT. ADMIN. REG. 1877, 1877–78 (Dec. 23, 2021).

121. Derf Johnson, *Nutrient Pollution Threatens Montana's Waterways, Economy, & Way of Life*, MONT. ENV'T INFO. CTR. (Dec. 15, 2021), https://perma.cc/2NNV-HXET.

122. *Id.*

123. Amanda Eggert, *Environmental group sues over new water quality law*, MONTANA FREE PRESS (Mar. 25, 2022), https://perma.cc/69W3-FJY4.

Court for the District of Montana for EPA's failure to approve or disapprove Montana's new narrative standards by the deadlines set in the CWA.[124]

Regardless of how nutrient pollution is ultimately regulated in Montana, the effect of *Upper Missouri Waterkeeper* on state WQS variance regulation is clear. States have a green light to request—and EPA has permission to approve—water quality standards variances based on the cost of WQS compliance.[125] Without question, whether a pollution control measure will cause substantial and widespread economic harm is a factor that cannot be overlooked,[126] particularly among vulnerable communities already facing income barriers and equitable access to a clean environment.[127] Requiring dischargers to implement pollution control technology, regardless of cost, may place an additional economic burden on these communities and ultimately, exacerbate their inequitable access to high quality water resources.[128] This is a key consideration in Western states like Montana, whose tribal and rural communities face a documented higher risk of exposure to water pollution and the resulting environmental, economic, and human health impacts.[129]

However, using cost as a justification for delaying WQS compliance may result in greater economic harm over the long-term, outweighing short-term savings. Similarly, by requiring only highest attainable condition compliance at the end of a variance term and delaying base WQS compliance, pollution will continue to impair designated uses of waterbodies, leaving states and affected communities facing remediation, environmental, and social costs that could have been avoided had dischargers reached base WQS attainment.[130] Given that Montana alone spent $38.3 million on nutrient pollutant treatment remediation in 2018, this long-term impact is potentially significant.

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124. Complaint for Declaratory & Injunctive Relief, Upper Mo. Waterkeeper v. U.S. Env't Prot. Agency, Mar. 24, 2022, No. 4:22-cv-00032.

125. *See* Numeric Nutrient Standards Variances: Individual Variance for Whitefish, MT (Mont. Dep't of Env't Quality 2017); *see generally, e.g.*, Entergy Corp. v. Riverkeeper, Inc., 556 U.S. 208 (2009).

126. Paul N. Singarella & Marc T. Campopiano, *The Role of Economics in Environmental, Health, and Safety Regulations After Entergy*, 35 ENVIRONS 101, 144 (2011).

127. Carolina Bazalas & Isha Ray, *The Drinking Water Disparities Framework: On the Origins and Persistence of Inequities in Exposure*, 104 AM. J. OF PUB. HEALTH 4, 608 (2014), https://perma.cc/Y2KL-6ERN; KEVIN SHAFER & RADHIKA FOX, AN EQUITABLE WATER FUTURE 12, U.S. Water Alliance (2017), https://perma.cc/K5LZ-U93Z.

128. SHAFER & FOX, *supra* note 127, at 13.

129. John T. Doyle et al., *Challenges and Opportunities for Tribal Waters: Addressing Disparities in Safe Public Drinking Water on the Crow Reservation in Montana, USA*, 15 INT'L J. OF ENV'T RESEARCH AND PUB. HEALTH 4, 574 (2018), doi.org/10.3390/ijerph15040567.

130. A Compilation of Cost Data Associated with the Impacts and Control of Nutrient Pollution, EPA No. 820-F-15-096, II-3 fig. II-1 (U.S. Env't Prot. Agency 2015).

These impacts extend far beyond just direct cost of pollution remediation. Western state economies rely upon high-quality water resources able to support outdoor recreation, including fishing and boating.[131] Montana, Hawaii, and Alaska—all states within the Ninth Circuit and affected by the court's decision here—derive at least 3% of their annual Gross Domestic Product from outdoor recreation, with Montana ranking number one at 4.3%.[132] In 2020, boating and fishing contributed $288 billion to Montana's economy, but the longevity of these economic benefits is dependent upon maintaining healthy waterbodies, fisheries, and the wildlife reliant upon them.[133] Further, approving WQS variance requests based on EPA's narrow cost analysis ignores the reality that environmental benefits of clean water are difficult to quantify.[134] It is relatively easy to put a dollar amount on factors such as cost and economic impact,[135] but far harder to calculate the value of ecosystem services, aesthetics of clear water free from algal blooms, and maintaining ecological integrity for future generations.

Finally, the agency actions and court decision here ignore the advances made in low-cost nutrient pollution treatment technology that allows wastewater treatment plants to remove nitrogen and phosphorus more effectively without expensive new technology. In 2012, Montana's DEQ initiated a program in training and technical support were provided to 11 wastewater treatment plants to optimize nutrient pollution removal without the implementation of reverse osmosis technology.[136] With minimal investment, less than $10,000 per plant, and using only conventional technology not designed to treat nutrients, DEQ recorded a 59% average reduction in total nitrogen and 33% reduction in total phosphorus across participating plants.[137] This achievement is substantial, and EPA considers the project as a case study in low-cost nutrient pollution treatment.[138] Allowing states to request variances based on the cost of new technology disincentivizes them from working with dischargers to implement these low-cost optimization methods, and may inhibit the advancement of these methods moving forward.

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131. State Outdoor Recreation Value Added as a Percent of State GDP, 2020 (U.S. Bureau of Econ. Analysis 2020), https://perma.cc/2VRR-NLG2.

132. *Id.*

133. Derf Johnson, *supra* note 121.

134. David M. Driesen, *The Societal Cost of Environmental Regulation: Beyond Administrative Cost-Benefit Analysis*, 24 ECOLOGY L.Q. 545, 558 (1997).

135. *Id.*

136. THE WATER PLANET CO., LOW COST NUTRIENT REMOVAL IN MONTANA (2016), https://perma.cc/4QUA-3WLW.

137. *Id.*

138. Case Studies on Implementing Low-Cost Modifications to Improve Nutrient Reduction at Wastewater Treatment Plants, EPA No. 841-R-15-004 (U.S. Env't Prot. Agency 2015), https://perma.cc/JZ4V-8LB6.

VI. CONCLUSION

The impact of the Ninth Circuit's decision in *Upper Missouri Waterkeeper v. EPA* extends far beyond the Montana variance at issue and represents a key interpretation of CWA statutory framework governing revisions to base WQS in states across the West. Without question, the economic impact of water treatment on affected communities is a critical factor when determining feasible control technology and the resulting reductions in pollution. However, the court's decision may encourage states to develop—and EPA to approve—water standards based on the upfront cost of technology rather than the substantial long-term costs associated with pollution and its impacts on water quality, recreation, and human health.[139] Similarly, by failing to require WQS compliance at the end of a variance term, or at the very least highest attainable condition compliance during the term, this decision may discourage states from adopting new pollution control technology in favor of maintaining conventional technology that is unable to reduce pollutants to the levels necessary to attain base WQS and to achieve the CWA's purpose to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[140]

139. *Nutrient Pollution: Effects*, *supra* note 26.
140. 33 U.S.C. § 1251(a).