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UNITED STATES DISTRICT COURT
DISTRICT OF MONTANA
GREAT FALLS DIVISION

UPPER MISSOURI WATERKEEPER, FLATHEAD LAKERS, and the CONFEDERATED SALISH & KOOTENAI TRIBES, Plaintiffs, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and LEE ZELDIN, Administrator, United States Environmental Protection Agency, Defendants.	CV-26-7-GF-JTJ

INTRODUCTION

1. Plaintiffs Upper Missouri Waterkeeper, Flathead Lakers, and the Confederated Salish & Kootenai Tribes bring this action to challenge the U.S. Environmental Protection Agency's ("EPA") October 3, 2025 decision approving revisions to the State of Montana's numeric nutrient water quality standards.

2. EPA's Oct. 3, 2025 approval of Montana's revised standards – which eliminate protective, science-based water quality criteria for nutrient pollutants (nitrogen and phosphorus) in most wadeable streams and certain larger surface waters across the state – is inconsistent with the Clean Water Act and was arbitrary, capricious, and an abuse of discretion under the Administrative Procedure Act, and made without the requisite consultations under Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536(a)(2).

3. Plaintiffs seek an order setting aside EPA's approval of revisions to Montana's numeric nutrient water quality standards; injunctive relief directing the EPA to promulgate numeric nutrient water quality standards for Montana's surface waters; an order remanding to Defendants for further consideration and completion of Section 7 consultations under the Endangered Species Act, 16 U.S.C. § 1536(a)(2); and other relief to which Plaintiffs are entitled as a matter of law.

PARTIES & STANDING

4. Plaintiff Upper Missouri Waterkeeper, Inc. (Waterkeeper) is a non-profit membership organization dedicated to protecting and improving fishable, swimmable, drinkable water and community health throughout the Upper Missouri River Basin. As part of its mission, Waterkeeper engages in policy, science, and advocacy related to Montana's implementation of its Clean Water Act duties and citizens' guarantee to a clean and healthful environment under the state constitution.

5. Among Waterkeeper's members is Melanie West, who uses and enjoys Montana waterways where water quality is threatened or has been impaired by eutrophication. Ms. West has recreational, aesthetic, and economic interests that have been and will be adversely affected by Defendant's approval of nutrient water quality standard revisions that are contrary to the Clean Water Act and the Administrative Procedure Act and risks allowing nutrient pollution discharges to occur without effective control. Other members of Waterkeeper include Jayson Oneill, who has ecological, aesthetic, and recreational interests that are adversely affected by Defendant's approval of nutrient water quality standards revisions in violation of the Clean Water Act and the Administrative Procedure Act and without completing consultations with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act.

6. Plaintiff Flathead Lakers (Lakers) is a non-profit membership organization that has worked since 1958 to protect Flathead Lake and its watershed through conservation, education, and advocacy at both the local and state levels. Grounded in best-available science, Lakers champion policies and practices that safeguard clean water, healthy ecosystems, and the communities that depend on those resources. For more than six decades the organization has built broad public support for watershed stewardship, engaging residents, visitors, and decision-makers in efforts to preserve the ecological integrity and high-quality of life that define the Flathead watershed. Lakers and its members possess a long-standing and deeply rooted interest in ensuring strong, science-based standards exist to protect Montana's water resources and aquatic life from harm.

7. Plaintiff the Confederated Salish and Kootenai Tribes (CSKT) are a federally-recognized Indian tribe organized pursuant to the Indian Reorganization Act of 1934, 25 U.S.C. § 5123. For thousands of years, the CSKT have relied on the fish native to their homelands for nutritional and cultural sustenance, including species listed under the Endangered Species Act (Bull Trout) or considered for listing (Westslope Cutthroat Trout). Through the 1855 "Treaty with the Flatheads, Etc." 12 Stat.975 ("Hellgate Treaty") the CSKT reserved for themselves a homeland (the Flathead Indian Reservation) and the right to continue taking fish from all usual and accustomed places both on the Flathead Indian Reservation and

throughout their aboriginal homeland. Hellgate Treaty of 1855, Art. III. Since the Treaty was signed, the CSKT have expended significant resources and effort to restore native fish species, particularly ESA listed Bull Trout, throughout the Flathead Basin. For CSKT Tribal members to fully exercise their treaty-reserved right to harvest fish, there must be water quality sufficient to support sustainable fisheries, and fish that are safe for human consumption.

8. The CSKT also has an interest in ensuring that water that flows from locations under the water quality jurisdiction of the State of Montana does not harm treaty-protected resources within the Flathead Indian Reservation, such as fish (e.g., bull trout) and wildlife that rely on Flathead Lake, the largest natural freshwater lake west of the Mississippi River. The southern half of the lake is located within the Flathead Reservation boundaries and under the jurisdiction of the CSKT. Maintenance of CSKT WQS requires complementary, science-based regulation of pollution and polluting activities on lands upgradient of the Flathead Reservation's surface waters.

9. Waterkeeper, Lakers, and CSKT members and supporters reside on or near, use, or recreate on the waters of Montana, including waters affected by the nutrient water quality standards at issue in this case, and waters that support threatened or endangered species and whose nutrient standards were revised before consultation with the U.S. Fish and Wildlife Service was completed under Section

7 of that Act. Plaintiffs and their members appreciate the ecological and aesthetic character of Montana's endangered species in Montana, and those species' cultural and scientific values. EPA's approval of Sections 1 and 2 of House Bill 664 (HB664) effectively repeal numeric nutrient water quality standards for Clean Water Act purposes, affecting the volume, type, and concentrations of nutrient pollutants capable of discharging to waters used by Plaintiffs.

10. Defendants injured Plaintiffs and their members by approving Montana's elimination of numeric nutrient criteria and reversion to use of general narrative water quality criteria, an action that will result in issuance of National Pollutant Discharge Elimination System (NPDES) permits, impairment determinations, and Total Maximum Daily Load (TMDL) restoration plans for impaired waters that do not apply numeric nutrient thresholds that are protective of designated uses. The inevitable consequence of eliminating protective numeric nutrient criteria and reverting to a singular narrative criteria is that Montana waters will be more polluted by nitrogen and phosphorus.

11. Further, Plaintiffs' interests in the use, enjoyment, and protection of waters and ESA-listed or proposed freshwater dependent species in Montana from nutrient pollution are within the interests sought to be protected by the Clean Water Act. Plaintiffs will derive less pleasure from studying and observing water-dependent species affected by nutrient pollution as a result of defendants' action.

The injuries complained of herein are a direct result of the approval of the revisions to state water quality standards by the EPA under 33 U.S.C. § 1313 and by EPA's failure to complete Section 7 consultations under the Endangered Species Act before approving the revised standards. The relief sought in this Complaint will redress those injuries.

12. Nutrient pollution causes and contributes to algal, bacterial, and plant growth in waters which, in turn, depletes oxygen to the detriment of fish and wildlife. Excessive nutrient pollution in surface waters can create toxic conditions for wildlife and humans and cause severe habitat and aesthetic degradation. Plaintiffs' members who recreate and/or fish in or on Montana's waters are harmed by nutrient pollution and the algal, bacterial, and nuisance plant growth impacts it causes, including but not limited to nutrient pollution's adverse impacts on fish and invertebrate populations through oxygen depletion or habitat alteration; toxic algal bloom impacts on wildlife, domesticated animals, and human health; and nutrient-fed algal blooms and nuisance plant growth creation of unsightly and unbalanced ecological conditions in waters of the state, conditions that also negatively affect boating and fishing uses.

13. Plaintiffs individually and collectively have standing to bring this action.

14. Plaintiffs have representational standing to bring this action. Plaintiffs rely on protective water quality standards to stop and prevent pollution that may cause or contribute to impairment of waters they use. EPA's approval of HB664's elimination of numeric nutrient water quality standards has an adverse impact on Plaintiffs and their members' ability to use and enjoy water bodies in Montana, and has injured their recreational, environmental, aesthetic, cultural, and related interests by reducing their returns from outdoor recreation and their enjoyment from fishing, nature appreciation, and paddling. These injuries are traceable to EPA's erroneous approval and are capable of redress by this Court.

15. As examples, EPA's approval of Montana's elimination of numeric nutrient criteria leaves the wadeable Gallatin River in Southwestern Montana without clear, anticipatory, and preventative metrics for restricting wastewater discharges. The middle segment Gallatin River is designated as impaired by nuisance algal blooms, and so too the West Fork Gallatin and East Gallatin River are impaired by nutrient pollutants. Both waterways contain numerous nutrient pollutant discharge sources whose permit terms and conditions cannot now rely on numeric nutrient criteria.

16. Absent preventative numeric nutrient criteria, Waterkeeper members who use and enjoy the Gallatin and like rivers for in-water recreation, fishing-based recreation, and income-generating activities such as guiding and outfitting

will have their uses diminished by virtue of less stringent nutrient permit limits, allowing discharges of harmful volumes of nutrient pollutants to surface waters. Many surface water segments in the Upper Missouri River Basin remain impaired by nutrient pollutants and unable to fully support sensitive aquatic life or fishing, including blue ribbon trout streams whose classifications require protection and maintenance of fisheries. Moreover, restoration of these waterways is stymied by less precise and more subjective narrative criteria that require occurrences of negative biological responses before regulatory controls are imposed or strengthened.

17. Similarly, many reservoirs and lakes in Montana, such as Hebgen Lake, Canyon Ferry Reservoir, and Whitefish Lake among others, suffer from recurrent cyanobacteria "blue green algal" blooms each summer. These surface waters receive flows containing nutrient pollutants from upgradient wadeable streams—waters that have lost protections previously afforded by numeric nutrient criteria. The elimination of numeric nutrient criteria for polluting activities on headwaters upgradient of Montana lakes and reservoirs threatens to exacerbate recurrent negative ecological harm, including toxic blue green algae blooms, in downstream lakes and reservoirs, degrading those waters' swimming, fishing, aquatic life, and drinking water uses. Harmful algal blooms that result from the

failure to prevent nutrient pollution in these waters may kill pets or livestock or harm the health of plaintiffs' members.

18. Elimination of numeric nutrient criteria means many Montana waterways now rely on singular narrative prohibitions against harm by nutrient pollutants absent site-specific or clearly measurable metrics capable of preventing harm.

19. Both Lakers and the CSKT have advocated for and in fact funded various water restoration projects on wadeable streams in the Flathead Basin aiming to improve, among other items, water quality degraded by nutrient pollutants. Less precise, more subjective nutrient pollutant regulation through narrative criteria and general prohibitions against harm threaten to undermine the efficacy of plaintiffs' restoration projects by both allowing negative ecological responses to occur before strengthened regulation is triggered, and by making measurement of harm or restoration less precise, delayed, more costly and/or resource intensive.

20. The cumulative impacts of nutrient loading from anthropogenic sources have long frustrated attainment and protection of water quality standards in Ashley Creek, a waterway running through the Flathead Valley adjacent to Kalispell, and nutrients remain top contributing pollutants to that waterway's impairment. Both the Lakers and the CSKT's ability to use and enjoy waters of the

Flathead Basin are harmed by less stringent and more reactive pollution regulation, including but not limited to less stringent pollution discharge terms for the City of Kalispell's discharge to Ashley Creek, a wadeable stream that flows into the Flathead River and Flathead Lake.

21. Similarly, Flathead Lake, which receives the lion's share of surface water flowing in the Flathead Basin, remains both sensitive to anthropogenic nutrient loading and remains in fact impaired by nutrients for more than twenty years. Less precise and more subjective nutrient pollution control in the Flathead Basin's wadeable streams and the State of Montana's refusal to apply numeric nutrient criteria in CWA actions threatens decades-long restoration and conservation efforts downstream on the Lake and its tributaries led by Lakers and the CSKT, outcomes that also harm Lakers and the CSKT's protected interests.

22. Excessive nutrients, such as nitrogen and phosphorus, can alter Montana waterway chemistry and lead to eutrophication and the accompanying excessive/harmful algae blooms and nuisance aquatic vegetation and related diminishment of healthy dissolved oxygen, temperature, and pH parameters. This process creates an environment in which freshwater species cannot live, leading to migration or death in the case of fish species. It can also deplete food resources for species dependent upon freshwater organisms for sustenance.

23. As but two examples, sensitive native wild trout species such as the Bull Trout and Fluvial Arctic Grayling are threatened by less precise or delayed identification or control over nutrient pollution in Montana's surface waters. The Grayling and Bull Trout require cold, clean, complex and connected habitat for viable growth and propagation, and are highly sensitive to habitat degradation. Primary ecological effects of nutrient-induced eutrophication of surface water includes but is not limited to oxygen depletion, pH and temperature variability, nuisance aquatic vegetation that smothers substrate and water column character, and disruption and changes in the aquatic food web reducing foraging opportunities, all of which impact those and similar water-dependent imperiled species.

24. Plaintiffs also each possess organizational standing to bring this action. Waterkeeper, Lakers, and the CSKT have been actively engaged in a variety of educational, restoration, and advocacy efforts aimed at improving water quality, retaining numeric nutrient standards, and nutrient pollutant regulation in Montana. Each Plaintiff also has engaged in a variety of education, restoration, and advocacy efforts aimed at protecting and restoring imperiled species, and especially freshwater species protected under the Endangered Species Act such as the bull trout. EPA's approval of HB664 and failure to complete consultation before rendering that decision adversely affects Plaintiffs' respective clean water

advocacy and restoration efforts. These injuries are traceable to EPA's violations and are redressable by the Court.

25. Defendant United States Environmental Protection Agency (EPA) is the action agency responsible for implementation of the Clean Water Act and oversight of Montana's delegated state program, and is the entity who issued the October 3, 2025 Action Letter challenged in this case. Defendant Lee Zeldin, the chief officer and Administrator of EPA, is the federal official ultimately responsible for EPA's administration and implementation of its legal duties. Administrator Zeldin is sued in his official capacity. Under Section 303(c) of the Clean Water Act, 33 U.S.C. § 1313(c), all changes to state water quality standards must be approved by the Administrator of EPA.

JURISDICTION AND VENUE

26. Plaintiffs bring this action pursuant to the Administrative Procedure Act, 5 U.S.C. § 551, *et seq.* and Section 11(g) of the Endangered Species Act, 16 U.S.C. §§ 1540(c), (g).

27. This court has jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal question), 5 U.S.C. §§ 701-706 (Administrative Procedure Act), because EPA's approval of water quality standards under 33 U.S.C. § 1313 is a matter arising under a law of the United States, and because Plaintiffs seek declaratory relief, 28 U.S.C. §§ 2201-02.

28. Venue is proper in this Court and this Division under 28 U.S.C. § 1391(e) and 16 U.S.C. § 1540(g)(3)(A), because Plaintiffs and their members reside in the District of Montana, Plaintiff Waterkeeper maintains an office in Bozeman, and Waterkeeper's mission and purpose is the protection of the Upper Missouri River Basin.

29. As required by Section 11(g)(2)(A)(i) of the Endangered Species Act, Plaintiffs provided EPA and the Department of Interior, U.S. Fish and Wildlife Service, notice of their violations of Section 7 of the Act by letter dated October 31, 2025. A copy of this notice letter is attached as Exhibit A to this complaint.

30. The EPA received a copy of Plaintiffs' notice letter on November 7, 2026.

31. The Fish and Wildlife Service received a copy of Plaintiffs' notice letter on November 13, 2026.

32. More than sixty days have passed since the notice letters were served, and the violations complained of in the notice letter are continuing or reasonably likely to continue to occur.

LEGAL BACKGROUND

A. The Clean Water Act

33. The Clean Water Act, 33 U.S.C. § 1251 *et seq*., is a comprehensive water quality statute designed to "restore and maintain the chemical, physical, and

biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The Act establishes a goal of attaining "water quality which provides for the protection and propagation of fish, shellfish, and wildlife." 33 U.S.C. § 1251(a)(2). States are obligated by 33 U.S.C. § 1313 to develop and implement standards for protection of water quality conforming to the minimum standards established by the EPA Administrator. Such water quality standards consist of a designated use for the water bodies involved and water quality criteria that will protect the designated use. 33 U.S.C. § 1313(c)(2)(A).

34. No party may discharge into the waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit, and no NPDES permit may be issued that will allow the discharge of pollutants that may cause or contribute to the violation of state water quality standards. 40 CFR § 122.44(d).

35. States are required to identify water bodies within their boundaries that are not attaining water quality standards. For each such impaired water, states must develop a "total maximum daily load" for the pollutant causing the impairment, which when achieved will result in compliance with the water quality standard. 33 U.S.C. § 1313(d).

36. When establishing water quality criteria, "[s]tates 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. For waters with multiple use designations, the criteria shall support the most sensitive use." 40 C.F.R. §§ 131.11(a)(1); 131.5(a)(2).

37. When establishing numeric water quality criteria, states must base values on EPA's National Recommended Water Quality Criteria Guidance, published pursuant to CWA § 304(a), 33 U.S.C. § 1314(a), on the 304(a) Guidance "modified to reflect site-specific conditions," or on "[o]ther scientifically defensible methods." 40 C.F.R. § 131.11(b).

38. States may establish narrative criteria or criteria based on biomonitoring methods "where numerical criteria cannot be established or to supplement numerical criteria." 40 C.F.R. § 131.11(b)(2).

39. Whenever a state adopts a new or revised standard, it must submit that standard to EPA for approval. 33 U.S.C. § 1313(c)(2); 40 C.F.R. § 1313.20(c). The new or revised standard only becomes the applicable water quality standard for the state if EPA determines the standard meets all the requirements of the Act, including that criteria are adequate to protect designated uses and are based on sound scientific rationale. 33 U.S.C. § 1313(c)(3); 40 C.F.R. §§ 131.11(a), 131.21(c).

40. Montana promulgated numeric water quality standards for nitrogen and phosphorus (nutrient pollutants) in most western wadeable waterbodies of the state, based on years of scientific analysis and development, including EPA's

Ecoregional Nutrient Criteria. Nutrient Criteria Development; Notice of Ecoregional Nutrient Criteria, 68 Fed. Reg. 557-560 (Jan. 6, 2003).

41. Montana found – and EPA agreed – that the numeric nutrient water quality criteria adopted are necessary to protect the designated uses of most shallow or "wadeable" streams and certain other waters. *See* Montana Dep't of Environmental Quality, Circular DEQ 12-A (Circular 12-A).

42. The numeric nutrient water quality standards Montana adopted in 2014 set a range of 25 micrograms per liter ("µg/l") to 150 µg/l of phosphorus that apply to Montana's wadeable streams. Total nitrogen levels range from 250 µg/l to 1,300 µg/l. Table 12A-1, Circular 12-A.

43. All surface waters in Montana are, by default and unless otherwise specified, designated for public water supply, wildlife, fish and aquatic life, agriculture, industry, recreation, and other beneficial uses. ARM 17.30.601; *see also* ARM 17.30.607-17.30.615. All of these uses may become impaired by the excessive addition of nutrient pollutants, causing and contributing to nuisance or harmful plant or algal growth and other negative water quality effects.

B. The Administrative Procedure Act

44. The Administrative Procedure Act (APA), 5 U.S.C. §§ 701-706, provides that "[a] person suffering legal wrong because of agency action, or

adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof." 5 U.S.C. § 702.

45. The EPA is a federal agency whose actions are subject to review under the APA.

46. The APA provides that a court shall "hold unlawful and set aside agency action, findings, and conclusions found to be...arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with the law," 5 U.S.C. § 706(2)(A), or agency action that is undertaken "without observance of procedure required by law," 5 U.S.C. § 706(2)(D).

C. The Endangered Species Act

47. The Endangered Species Act (ESA), 16 U.S.C. §§ 1531-44, is the most comprehensive legislation for the preservation of threatened and endangered species ever enacted by any nation. Its fundamental purposes are "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved [and] to provide a program for the conservation of such endangered species and threatened species..." 16 U.S.C. § 1531(b).

48. Before a species receives any protection under the Act, the United States Fish and Wildlife Service (USFWS) must list the species as either "threatened" or "endangered." 16 U.S.C. §§ 1533(a), (c). A "threatened" species is one that is likely to become an endangered species within the foreseeable future

through all or a significant portion of its range." Id., § 1532(2). An "endangered species" is one that is "in danger of extinction throughout all or a significant portion of its range." *Id*. § 1532(6).

49. Concurrent with listing a species, the USFWS is to designate the habitat that is critical for the species' conservation or recovery. 16 U.S.C. §§ 1533(a)(3)(A)(i), 1532(5)(A).

50. Section 7 of the ESA and its implementing rules require each federal agency, in consultation with the USFWS, to insure that any action authorized, funded, or carried out by the agency is not likely to (1) jeopardize the continued existence of any threatened or endangered species or (2) result in the destruction or adverse modification of the critical habitat of such species. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a).

51. The action agency also has a mandatory duty to confer with the USFWS on any actions that are "likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat." 50 C.F.R. § 402.10(a).

52. "Action" is broadly defined to include actions that may directly or indirectly cause modifications to the land, water, or air, and actions that are intended to conserve listed species or their habitat. 50 C.F.R. § 402.02.

53. An action would "jeopardize the continued existence of" a species if it "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02.

54. "Destruction or adverse modification" of critical habitat means "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical." 50 C.F.R. § 402.02.

55. To start the mandatory consultation process, for each federal action the action agency must request from USFWS a list of any ESA-listed or proposed species that may be present in the action area. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12. The "action area" is defined to mean "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." 50 C.F.R. § 402.02.

56. If the agency determines that its proposed action will not affect listed species or critical habitat, it is not obligated to consult with the USFWS. 50 C.F.R. § 402.14.

57. If the action agency, or the USFWS, determines that its proposed action may affect any listed species or critical habitat, the agencies must engage in formal or informal consultations with the USFWS. 50 C.F.R. §§ 402.13, 402.14.

58. To complete informal consultation, the action agency must determine, with the written concurrence of the USFWS, that the action is not likely to adversely affect listed species or critical habitat. 50 C.F.R. § 402.13(a).

59. If the action is likely to adversely affect listed species or critical habitat, the action agency and the USFWS must engage in formal consultation. 50 C.F.R. § 402.14.

60. Effects determinations must be based on the sum of the direct, indirect, and cumulative effects of the action, added to the environmental baseline and interrelated and interdependent actions. 50 C.F.R. § 402.02 (defining "effects of the action").

61. To complete formal consultation if the agency action is not likely to result in jeopardy or destruction or adverse modification of critical habitat, the USFWS must provide the action agency with a biological opinion, explaining how the proposed action will affect the listed species or habitat, together with an incidental take statement and any reasonable and prudent measures necessary to avoid jeopardy. 16 U.S.C. § 1536(b); 50 C.F.R §§ 402.14(g)-(i).

62. If the USFWS determines that the action is likely to jeopardize the species or result in the destruction or adverse modification of critical habitat, the agency "shall suggest those reasonable and prudent alternatives which [it] believes" would not result in jeopardy or adverse modification. 16 U.S.C. § 1536(b)(3).

63. After it has initiated consultation with the USFWS, the action agency "shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures" that would not violate Section 7(a)(2). 16 U.S.C. § 1536(d); 50 C.F.R. § 402.09.

64. Both the USFWS and the action agency have an obligation to use "the best scientific and commercial data available" to evaluate the impacts the action will have on listed species. 16 U.S.C. §§ 1536(a)(2) & (b)(3); 50 C.F.R. § 402.14(g).

65. EPA, the USFWS, and the National Marine Fisheries Service signed a memorandum of agreement memorializing EPA's obligation to comply with the substantive and procedural obligations of the ESA in approving state water quality standards. 66 Fed. Reg. 11,202 (Feb. 22, 2001).

FACTUAL BACKROUND

A. Nutrient Pollutants

66. Nutrient pollutants can cause damage downstream from a source, including over great distances, (for example, hypoxic conditions in the Gulf of Mexico are caused by pollutants discharged in the Mississippi River system). Nutrients can accumulate in aquatic systems by attaching to sediments, causing algal blooms to increase and recur when sediments are remobilized, thereby causing new or repeated water quality problems even after the original source of pollution is removed. Nutrients are often referred to as "cumulative" pollutants because of their ability to damage water quality and uses of water away from a source and over an extended period of time.

67. The most common nutrient pollutants in surface water are phosphorus and nitrogen. Nutrient pollutants act as fertilizer in water, causing and contributing to the growth of nuisance aquatic vegetation and algal blooms. These algal blooms and nuisance vegetation, in turn, cause and increase turbidity in water, cause and contribute to reductions in dissolved oxygen, and, for certain types of algae, can produce harmful toxins. These effects all adversely impact fish, aquatic invertebrates, wildlife, and human health. *See* EPA, Nutrient Criteria Technical Guidance Manual: Rivers and Streams, at 3-5 (July 2000).

68. Nutrient pollution impairs designated uses by degrading fishing, impairing wildlife and wildlife habitat, and impairing human health and contact recreation in affected waters.

69. In 2000, EPA, in recognition of the problems caused by nutrient pollution, issued direction and guidance to the states to develop numeric nutrient criteria to protect designated uses in all waters. EPA, Nutrient Criteria Development; Notice of Nutrient Criteria Technical Guidance Manual: Rivers and Streams, 65 Fed. Reg. 46167-46169 (July 27, 2000). EPA urged the states to develop standards by 2003 and provided states with guidance on standards development and a set of standards, developed to ecoregion, that states could adopt if they chose not to develop their own. *Id.*

70. In 2011, EPA issued guidance to the states urging the development and adoption of numeric criteria for waters.

71. The State of Montana has long acknowledged that nitrogen and phosphorus are two of the most problematic types of pollution in Montana's flowing waters. As recently as the 2020 MDEQ Integrated Report, excess nitrogen and phosphorus accounted for nearly twenty percent of all stream miles impaired by all forms of water pollution in Montana. Unhealthy nitrogen and phosphorus levels, in combination with the challenges presented by chronic dewatering and evolving precipitation and land use patterns, are cumulatively degrading dozens of

waterways across Montana, rendering them unfishable, unswimmable, and unsuitable for recreation or for aquatic life. Montana DEQ, MAR Notice No. 17-356; *see also* 2014, 2016, 2018, 2020 Montana Integrated Reports.

72. The State of Montana has struggled to fulfill its duty of adequately protecting and supporting local waterway health by utilizing its regulatory authority over point-source discharges of nutrients via the delegated Montana Pollutant Discharge Elimination System (MPDES) permit program. For decades, the difficulty in translating narrative criteria prohibiting waterway harm into meaningful permit terms for nutrient discharges often resulted in ambiguous or vague discharge permits and, sometimes, permit limits that failed to protect local receiving waterways. This chronic regulatory challenge in controlling the undesirable effects of nutrient loading – such as nuisance and toxic algal growth – and preventing harm to protected uses like fishing and water recreation led Montana to consider adoption of numeric nutrient criteria to improve the tools available for protecting its waterways. Montana DEQ, MAR Notice No. 17-356.

73. Montana recognized that creating numeric nutrient criteria would reinforce and enhance its existing work implementing other, already-adopted scientific standards protecting and supporting good water quality, such as standards for dissolved oxygen and pH. Understanding the scientific connections between nitrogen, phosphorus, and these other water quality parameters, Montana decided

to create numeric nutrient criteria to ensure protection and attainment of all parameters of water quality health, and in so doing, better protect and support water recreation and aquatic life (i.e., the most sensitive designated uses for most Montana waterways). *Id*.

74. As a result of EPA's approval of HB664, science-based numeric nutrient criteria are no longer applicable water quality standards in Montana for CWA purposes. Instead, Montana possesses a singular narrative prohibition applicable to nutrients contained in ARM 17.30.637. Montana does not possess any promulgated and EPA-approved narrative nutrient translator water quality criteria or similar implementing rules.

75. MDEQ has published one draft MPDES permit renewal since EPA's October 3, 2025 approval action, a discharge permit for the East Boulder Stillwater Mine. In that draft permit MDEQ proposed, applying its narrative criteria alone, renewal of nitrogen effluent limits for the Stillwater Mine authorizing 16 lbs/day, whereas the prior 2023 MPDES permit for the mine possessed a nitrogen effluent limit of 0.27 lbs/day. That draft permit failed to provide an evidentiary record demonstrating how, on the basis of existing data, the narrative standard supported capping current performance and abandoning the previously established, and exponentially more stringent, nitrogen limit for the mine that was derived based on application of numeric nutrient criteria.

76. Absent action from this Court, EPA action authorizing MDEQ's use of narrative criteria and omission of the scientific basis supporting numeric nutrient criteria in Montana threatens to open the floodgates to non-protective MPDES permitting actions, stalled and ineffective nutrient impairment identification and restoration planning under Section 303(d), and harm to imperiled freshwater species reliant on protections afforded them under the ESA.

B. Montana's Nutrient Water Quality Standards

77. The federal water quality standards at issue in this case are Montana's numeric nutrient criteria (NNC), contained in Circular DEQ 12-A and associated implementing rules and guidance, all of which were used to evaluate waterbody health and inform NPDES permitting and waterbody restoration decisions. With EPA's October 3, 2025 Action, these numeric criteria were improperly eliminated for Clean Water Act purposes in Montana.

78. EPA has historically supported the adoption of numeric nutrient criteria to inform NPDES permitting and Section 303(d) impairments and waterway restoration planning.

79. EPA has also long recognized eutrophication and nutrient pollution as a major source of impairment of the nation's waters and stated that "high nitrogen and phosphorus loadings, or nutrient pollution, result in harmful algal blooms, reduced spawning grounds and nursery habitats, fish kills, oxygen-starved hypoxic

or 'dead' zones, and public health concerns related to impaired drinking water sources and increased exposure to toxic microbes such as cyanobacteria. Nutrient problems can exhibit themselves locally or much further downstream leading to degraded estuaries, lakes, and reservoirs, and to hypoxic zones where fish and aquatic life can no longer survive." Memo of Benjamin H. Grumbles, Assistant Administrator for Water, EPA, 5/25/2007.

80. Montana adopted dual numeric nutrient criteria, including Circular DEQ 12-A, into law in 2014, and MDEQ submitted those criteria to EPA for review pursuant to CWA Section 303(c). MDEQ Submittal of Numeric Nutrient Standards for Surface Waters to Region 8 EPA, August 8, 2014. (MDEQ 2014 NNC Submittal, Exhibit B hereto).

81. EPA approved Montana's numeric nutrient standards submission for CWA purposes in 2015, finding "the adopted water quality criteria [.] are scientifically defensible, well supported by the record and consistent with CWA requirements." EPA 2015 Action Letter at 2, attached hereto as Exhibit C.

82. In May 2021, the Montana Legislature enacted Senate Bill 358, a bill that sought to repeal and eliminate numeric nutrient criteria for Clean Water Act purposes and directed the MDEQ to draft and adopt narrative nutrient criteria implementing rules. That legislation specifically sought the repeal of numeric nutrient criteria that MDEQ had submitted to EPA for approval in 2014, and that

EPA approved in 2015 finding the criteria protective of designated uses and representative of best available science.

83. In response to the enactment of Senate Bill 358 (SB358), MDEQ began drafting narrative nutrient translator rules to assist in CWA implementation post-repeal of numeric nutrient criteria, but MDEQ never promulgated those draft narrative nutrient rules.

84. MDEQ also refused to submit SB358's revision of numeric nutrient water quality standards to EPA for approval, leading to Plaintiff Upper Missouri Waterkeeper suing EPA to take non-discretionary action to approve or disapprove those revisions.

85. In response to that litigation EPA issued a set of three Action Letters dated May 10, 2022, disapproving Montana's attempt, through SB358, to eliminate numeric nutrient criteria and revert to narrative-only criteria for nutrient pollutant control under the CWA. (May 10, 2022 Action Letters) (attached hereto as Exhibit D).

86. EPA's May 10, 2022 Action Letters disapproved SB358's elimination of numeric nutrient criteria because it: "[R]evis[es] the desired condition for the applicable waterbodies to be the condition described by the general narrative criteria (narrative criteria) only (i.e., no longer including the NNC) without adequate information to demonstrate that the narrative criteria alone protects the

designated uses. The state's permitting record over the past two years demonstrates that the implementation of the narrative criteria alone does not protect the designated use, as required by 40 C.F.R. § 122.44(d)(1). Additionally, the narrative criteria alone, as informed by the record supporting the NNC, does not contain sufficient parameters or constituents to protect the designated use consistent with 40 C.F.R. § 131.11(a)(1). Applying a similar rationale, EPA is disapproving Section 3 and Section 4 of SB 358 because these sections revise the desired condition for the applicable waterbodies by mandating removal of any reference in Montana's regulations to the NNC by the Board (Section 3) and MDEQ (Section 4) without ensuring that the remaining criteria contain sufficient parameters or constituents to protect the designated use consistent with 40 C.F.R. § 131.11(a)(1). This deficiency is documented in the state's permitting record over the past two years. EPA is also disapproving Montana's new nondegradation provision in Section 7 [setting categorical exemptions for nutrient pollution] because it is inconsistent with 40 C.F.R. § 131.12(a)(2)." May 10, 2022 Action Letter 1 at pp. 2-3.

87. Notably, EPA's May 10, 2022 Action Letters explicitly instructed Montana that SB358's revisions, and alleged elimination, of numeric nutrient standards "cannot be used for any CWA purpose." May 10, 2022 Action Letter 1 at p.2.

88. On February 13, 2025, Upper Missouri Waterkeeper petitioned the MDEQ to review five years of nutrient water quality sampling data for the Big Hole River and determine, pursuant to 33 U.S.C. § 1313(d), whether that waterbody required an impairment determination. Among other items such as documentation of nuisance algal blooms, petition data demonstrated chronic exceedances of numeric nutrient criteria at several monitoring sites on the Big Hole River. EPA received notice and a copy of this petition on February 13, 2025.

89. On April 14, 2025, MDEQ issued a letter denying Waterkeeper's nutrient impairment petition for the Big Hole River. MDEQ's single page denial letter alleged that "[a]s a result of Senate Bill 358, passed during the 2021 Legislative Session [.] DEQ is unable to base nutrient assessments upon the numeric nutrient criteria found in Circular DEQ 12-A." EPA was provided notice and a copy of MDEQ's denial letter.

90. Simultaneous to the Big Hole Impairment petition, the 2025 Montana Legislature considered House Bill 664 (HB664), which like earlier SB358, sought to eliminate numeric nutrient standards and associated rules in Montana. Unlike SB358, HB664 did not include a requirement to adopt a narrative nutrient translator rule or contain any other enabling legislation regarding nutrient regulation: it simply sought to – by legislative edict and without any scientific record – eliminate the use of numeric nutrient criteria in Montana.

91. In comments to the Montana Legislature, and to MDEQ and to EPA, Plaintiffs each objected to the proposed elimination of numeric nutrient criteria. They noted that HB664 did not possess a scientific basis; did not direct any narrative nutrient translator regulation be developed; and identified how the elimination of numeric nutrient criteria was contrary to a well-developed body of science. Plaintiffs' comments identified how narrative standards were "reactive" in that they did not prevent impairment until adverse impacts had occurred, and instead only purported to address pollution that was already causing impairments. Plaintiffs explained that after impairments were identified it might take years, or even decades, for impaired waters to recover. Plaintiffs' comments also identified how less protective narrative criteria would allow nutrient pollution to be permitted at loads that can cause and contribute to impairment of fishing, swimming, aquatic life uses and likewise allow harmful algal blooms to occur. The comments lastly identified how narrative standards alone were unable to protect designated uses or assure meaningful implementation of CWA Section 303d impairment and restoration activities, and so too lead to NPDES permitting decisions incapable of assuring protection of designated uses or compliance with water quality standards.

92. The Montana Legislature adopted HB664 on May 7, 2025. HB664 Sections 1 and 2(1) specifically eliminated the applicable base numeric nutrients standards, which EPA refers to as Montana's numeric nutrient criteria. HB664 did

not include any scientific analysis of why numeric nutrient criteria were unable to protect designated uses of Montana surface waters, nor provide any analysis of whether narrative nutrient criteria were equally protective of designated uses of surface waters.

93. MDEQ submitted HB664's revision of nutrient criteria to EPA for review by letter dated May 6, 2025. Exhibit E, attached hereto. That WQS submission did not meet the minimum requirements for submission of revisions to standards. *See* 40 C.F.R. § 131.6.

94. Plaintiff Upper Missouri Waterkeeper petitioned EPA to conduct rulemaking, disapprove HB664 for CWA purposes, and impose all necessary nutrient water quality standards based on best available science, by letter dated June 4, 2025.

95. On October 3, 2025, EPA issued an "Action Letter" approving HB 664. EPA's action concerned Section 1, Section 2(1), and Section 5 of HB 664. Relevant here, Section 1 and 2(1) of HB 664 serve to remove Montana's applicable base numeric nutrients standards leaving a single narrative criteria under ARM 17.30.637 in place to address nutrient pollution in Montana. Exhibit F, attached hereto.

96. EPA's October 3, 2025 Action Letter "conclude[d] that Montana's revised WQS meet requirements to protect designated uses (i.e., protection of

aquatic life and recreation) under the CWA and its implementing regulations at 40 C.F.R. Par 131. EPA therefore approves Sections 1 and 2(1) of HB 664." The Action Letter further states that "[a]s a result of this determination, Sections 1, 2(1) and 5 of HB 664 pertaining to ARM 17.30.660 are effective for CWA purposes, including for implementation in the CWA Section 402 [.] permitting program [.] as of the date of this letter." Ex. F at 3.

97. The Action Letter states the "CWA does not require states to adopt numeric nutrient criteria. In fact, EPA's regulations authorize states to adopt narrative criteria[.] EPA will review Montana's regulations implementing HB 664 once those regulations are promulgated and sent to EPA in accordance with 40 C.F.R. § 131.6(e)." *Id*. Tellingly, the Action letter ignored EPA's own rules at 40 C.F.R. § 131.11(b)(2), which instruct that states should only rely on narrative criteria "where numerical criteria cannot be established or to supplement numerical criteria."

98. EPA's October 3, 2025 Action Letter references "a wealth of new information that the state could use to translate the narrative criteria for CWA implementation purposes[.]" Oct. 3, 2025 Letter at 3. The Letter also references other recent MDEQ analyses of biological response variables. *Id*. at 5.

99. Despite the EPA Action Letter's reliance on allegedly new MDEQ nutrient science and information, the State of Montana does not have any narrative

nutrient translator rules or other promulgated nutrient criteria. The alleged new science and analyses were not submitted as part of the package under 40 C.F.R. § 131.6 and could not have been properly submitted because they were never codified. MDEQ drafted narrative nutrient implementing rules after EPA's May 10, 2022 Action Letter disapproving SB358's revision of numeric nutrient criteria and transition to narrative nutrient standards, but the State never finalized those rules.

100. EPA's Oct. 3, 2025 Action letter also stated the agency "initiated informal consultation with FWS on May 29, 2025, and transmitted its Biological Evaluation to FWS on September 30, 2025." The Action Letter went on to state that "EPA's approval [.] pending completion of consultation under ESA Section 7(a)(2) is consistent with Section 7(d) of the ESA because it does not foreclose the formulation or implementation of any reasonable and prudent alternatives that might be determined appropriate." "MDEQ will be able to translate the narrative [water quality standard] relying upon the available science to provide the same level of protection for federally-listed species as afforded by the NNC. Application of the narrative criteria based on current and site-specific information should prevent adverse effects to listed species and designated critical habitat by minimizing algal biomass, preventing significant changes in the aquatic community, and providing the water quality (pH and dissolved oxygen) necessary to support aquatic life. EPA retains options available under Section 303(c) for

ensuring WQS are environmentally protective, including authority under CWA Section 303(c)(4)(B) to take action, when necessary, regarding WQS for Montana." Ex. F at 4.

101. On information and belief, EPA and the USFWS have yet to complete ESA Section 7 consultation concerning EPA's October 3, 2025 action approving the elimination of numeric nutrient criteria for Montana's wadeable streams and certain large waterbodies.

102. MDEQ's submission to EPA seeking approval of the elimination of numeric nutrient criteria did not include any scientific materials supporting said elimination, or any data supporting how implementation of the State's general narrative criteria could protect designated uses from the harmful effects of nutrient pollutants. Nor did the MDEQ's submission to EPA provide documentation of other relevant narrative criteria implementation procedures aimed at water quality protection, including but not limited to examples of Section 402 permitting or Section 303(d) impairment decisions applying narrative criteria in a consistent and protective manner.

103. In fact, MDEQ has administratively continued the majority of MPDES permits previously subject to numeric nutrient effluent limits and which were due for five-year permit renewals since 2017, a fact about which EPA has notice.

104. On November 14, 2025, MDEQ proposed a combined 2022-2024 Draft Water Quality Integrated Report pursuant to Section 303(d) and 305(d) of the Clean Water Act because MDEQ had refused to perform an Integrated Report in the wake of EPA's May 2022 Action Letters and disapproval of SB358.

105. The 2022-24 draft integrated report refused to evaluate all available science concerning either nutrient or dissolved oxygen impairments and did not propose any impairments based on nutrient pollution or dissolved oxygen, despite the agency possessing representative nutrient and dissolved oxygen data for a variety of Montana surface waters. EPA has received notice of and the opportunity to comment on MDEQ's draft combined 2022-2024 Integrated Report.

COUNT 1

EPA'S CONCLUSION THAT MONTANA'S PROPOSED ELIMINATION OF NUMERIC NUTRIENT CRITERIA & RELIANCE ON NARRATIVE CRITERIA WILL PROTECT DESIGNATED USES OF APPLICABLE WATERS IS ARBITRARY, CAPRICIOUS, AND OTHERWISE INCONSISTENT WITH LAW

106. The foregoing paragraphs are hereby incorporated by reference.

107. Water quality standards must be protective of the most sensitive use including aquatic life, recreation, and aesthetic uses.

108. Water quality standards must also be protective of existing uses, including endangered species.

109. Further, water quality criteria must prevent impairment of uses rather than waiting to address impairments as they arise.

110. Montana developed numeric nutrient criteria for certain waterbodies, finding that the numeric nutrient criteria in Circular 12-A are based on sound scientific rationale, are necessary to support and protect designated uses, and to meet CWA requirements. EPA concurred in those findings multiple times over the past decade, including as recently as May 2022.

111. EPA's approval of Montana's WQS revisions, including eliminating numeric nutrient criteria and relying on the State's narrative criteria alone, as informed by the record supporting the State's adoption of numeric nutrient criteria and implementation since, lacks a sound scientific rationale and does not contain sufficient parameters or constituents to protect designated uses consistent with 40 C.F.R. § 131.11(a)(1).

112. EPA's violation has caused, and will continue to cause, direct injury to the recreational, environmental, aesthetic, cultural and other interests of Plaintiffs and their members, and water users in Montana, by failing to protect designated uses of waters from adverse impacts of nutrient pollutants.

113. EPA's arbitrary and capricious action has caused and will cause injury to Plaintiffs because NPDES permits will be issued allowing the discharge of pollutants that will cause or contribute to violations of water quality standards and

impairment of uses of waters used by Plaintiffs and their members. Further, the approval of unprotective narrative standards will prevent waters from being recognized as impaired under Section 303(d) of the CWA and, thus, many Montana waters will not timely receive the protections and restoration plans Congress intended in enacting Section 303(d).

114. EPA's approval of Montana's revisions to numeric nutrient standards was thus contrary to the entirety of the record before it, arbitrary and capricious, contrary to law and an abuse of discretion.

COUNT 2

EPA'S APPROVAL OF MONTANA'S REVISED NUTRIENT STANDARDS IS BASED ON AN INCOMPLETE WQS SUBMITTAL AND IS INCONSISTENT WITH AGENCY RULES AND THEREFORE ARBITRARY, CAPRICIOUS, AND OTHERWISE INCONSISTENT WITH LAW

115. The foregoing paragraphs are hereby incorporated by reference.

116. WQS revisions submitted to EPA must contain "methods and analyses conducted to support water quality standards revisions." 40 C.F.R. § 131.6(b).

117. EPA may only approve a revision to a state water quality standard if the standard is protective of the designated use to which it applies. 40 C.F.R. §§ 131.5(a)(2), 131.6(c) & (f), 131.21(b).

118. WQS revisions submitted to EPA must also contain "general information which will aid the Agency in determining the adequacy of the

scientific basis of the standards [.] as well as information on general policies [.] which may affect their application and implementation." 40 C.F.R. § 131.6(f).

119. According to EPA Guidance, water quality criteria for the protection of aquatic life should protect all commercially or recreationally important species.

120. Montana's elimination of numeric nutrient criteria, and EPA's approval thereof, did not rely on and were not supported by any scientific basis demonstrating that narrative criteria are capable of protecting designated uses of Montana waters, including no data concerning the ability of narrative standards to protect all commercially or recreationally important species (i.e., wild trout populations).

121. Montana's WQS submittal to EPA only contained state legislation seeking to eliminate numeric nutrient water quality criteria and a proposed reversion to a single, general narrative criteria prohibition codified at ARM 17.30.637.

122. Montana's narrative criteria lack a scientific basis demonstrating their ability to protect all commercially or recreationally important species. Further, there is no evidentiary basis in MDEQ's WQS submission demonstrating Montana's narrative criteria prohibition is protective of, among others, the designated uses of recreation, or growth and propagation of salmonid fishes and

associated aquatic life. *See* ARM 17.30.607-615 (water use classifications), 17.30.621-629 (specific water quality standards).

123. Similarly, EPA's October 3, 2025 decision lacks an evidentiary record demonstrating that the implementation of Montana's narrative criteria alone protects designated uses, or that numeric nutrient criteria were unprotective of the same. 40 C.F.R. §§ 131.6(c), (f); 40 C.F.R. 122.44(d)(1).

124. With the elimination of numeric nutrient criteria and reliance on narrative criteria alone, Montana's WQS submittal to EPA, and EPA's decision, lacks any assurances that designated uses or existing uses, including endangered species, would be protected given the previously demonstrated importance of nutrient controls for applicable Montana waters. Further, water quality criteria must prevent impairment of uses, rather than waiting to address impairments that have arisen.

125. EPA could not lawfully approve Montana's elimination of numeric nutrient criteria in favor of a sole narrative criteria for CWA nutrient control because narrative criteria are only permissible as supplemental to numeric criteria, or where numeric criteria cannot be established. 40 C.F.R. § 131.11(b)(2). Numeric nutrient criteria can be established for the Montana waters in this case because such criteria had already been established and approved as scientifically sound and protective by EPA.

126. EPA also could not lawfully approve Montana's elimination of numeric nutrient criteria based on reference to a speculative, unpromulgated, and non-binding suite of science that was not part of the WQS submission.

127. EPA's approval of Montana's revisions to numeric nutrient criteria was thus arbitrary and capricious and not in accordance with law.

COUNT 3

EPA VIOLATES SECTION 7 OF THE ESA BY FAILING TO COMPLETE CONSULTATION PRIOR TO APPROVING MONTANA'S REVISIONS TO NUTRIENT CRITERIA

128. The foregoing paragraphs are hereby incorporated by reference.

129. EPA's approval of MDEQ's changes to nutrient criteria is an "agency action" subject to Section 7 consultation.

130. EPA retains discretionary control and involvement in Montana's water quality standards. Before approving a state's water quality standards criteria, EPA must determine that the new criteria meet all requirements of the CWA. 33 U.S.C. § 1313(c)(3); 40 C.F.R. § 131.21(c). Based on that determination, EPA can approve, suggests changes to, or disapprove the State's new criteria. 33 U.S.C. §§ 1313(c)(3)-(4); 40 C.F.R. § 131.21(c).

131. EPA's approval of MDEQ's revisions to nutrient criteria finalizes a reversion to narrative criteria for all CWA purposes in Montana, and because the revision "may affect" or is "likely to adversely affect" threatened and endangered

species and their designated critical habitat, EPA is required to consult with the USFWS. 50 C.F.R. §§ 402.14(a), 402.16.

132. EPA has initiated but not completed consultation with the USFWS on the affected endangered and threatened species and their designated critical habitat in Montana, including but not limited to the Bull Trout and Fluvial Arctic Grayling.

133. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to complete consultations with the USFWS and by failing to ensure through consultation that its approval of Montana's changes to nutrient criteria does not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(d); 50 C.F.R. § 402.09.

134. EPA is violating section 7(d) of the ESA by making irreversible or irretrievable commitments of resources (i.e., the approval of MDEQ's revisions to nutrient criteria) that may have the effect of foreclosing the formulation of reasonable and prudent alternatives to jeopardy of one or more listed species adversely affected by the revisions. 16 U.S.C. § 1536(d); 50 C.F.R. § 402.09.

REQUEST FOR RELIEF

Based on the foregoing, Plaintiffs request that this Court:

a) Accepts jurisdiction over this action;

b) Determines and declares that EPA's October 3, 2025 approval of Montana's elimination of numeric nutrient standards is unlawful within the meaning of 5 U.S.C. § 706 in that the decision is arbitrary, capricious, and otherwise not in accordance with law;

c) Determines and declares that EPA's October 3, 2025 approval of revisions to Montana's nutrient criteria violates the Endangered Species Act because EPA failed to complete consultation as required by 16 U.S.C. § 1536(a)(2) prior to approving the revision;

d) Determines and declares that EPA's October 3, 2025 approval of revisions to Montana's nutrient criteria violates the Endangered Species Act because EPA made an irreversible or irretrievable commitment of resources by approving the changes after initiating but before completing consultation, in violation of 16 U.S.C. § 1536(d);

e) Enter an order vacating and setting aside EPA's October 3, 2025 approval of Montana's revised nutrient water quality standards and directing EPA to complete consultations with the U.S. Fish and Wildlife Service and to finalize federal water quality standards for nutrients in Montana that comply with the CWA within a reasonable time period;

f) Award Plaintiffs all costs and expenses incurred in this action pursuant to the Equal Access to Justice Act, the ESA, and as allowed at law; and

g) Such other and further relief as the Court deems just and equitable.

Respectfully submitted this 26th day of January, 2026.

/s/ Guy Alsentzer
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EXHIBIT A - 60 Day Notice of Intent to Sue under the ESA

October 31, 2025

VIA CERTIFIED U.S. MAIL
RETURN RECEIPT REQUESTED

Lee Zeldin, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Paul Souza, Acting Director
U.S. Fish & Wildlife Service
1849 C St NW
Washington, DC 20240

Doug Burgum, Secretary of the Interior
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

RE: Notice of violations of the Endangered Species Act in connection with the Environmental Protection Agency's Approval of Revisions to Montana's Water Quality Standards for Nutrients

You are hereby notified that Upper Missouri Waterkeeper, Flathead Lakers, and the Confederated Salish and Kootenai Tribes (Commenters) intend to file a citizen suit pursuant to the citizen suit provision of the Endangered Species Act (ESA), 16 U.S.C. § 1540(g), for violations of the ESA, 16 U.S.C. § 1531 et seq., and specifically violations of Section 7 of the Endangered Species Act and its implementing regulations, 50 C.F.R. Part 402.

By failing to complete consultation with the U.S. Fish and Wildlife Service (FWS) prior to approving Montana's revision of nutrient water quality standards, and specifically the elimination of numeric nutrient criteria, EPA has violated its procedural and substantive obligations under ESA Section 7(a)(2), 16 U.S.C. § 1536(a)(2), to ensure against jeopardy to listed species or destruction or adverse modification of critical habitat.

Plaintiffs will file suit after the 60-day period has run unless the violations described in this notice are remedied. This notice is provided in fulfillment of the requirements of the citizen suit provisions of the ESA, 16 U.S.C. § 1540(g)(2)(A)(i).

I. Legal Framework

A. Endangered Species Act

Section 7 of the ESA and its implementing regulations require each federal agency, in consultation with the appropriate wildlife agency – here, the FWS – to insure that any action authorized, funded, or carried out by the agency is not likely to (1) jeopardize the continued existence of any threatened or endangered species or (2) result in the destruction or adverse modification of the critical habitat of such species. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a).

"Action" is broadly defined to include actions that may directly or indirectly cause modifications to the land, water, or air, and actions that are intended to conserve listed species or their habitat. 50 C.F.R. § 402.02. An action would "jeopardize the continued existence of" a species if it "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." *Id*. "Destruction or adverse modification" of critical habitat means "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical." *Id*.

For each federal action, the federal action agency – here, EPA – must request from the FWS a list of any ESA-listed or proposed species that may be present in the area of the agency action. 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12. "Action area" is defined by regulation to be broader than simply the project area: it means "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." 50 C.F.R. § 402.02.

If the action agency determines that its proposed action will not affect listed species or critical habitat, it is not obligated to consult with the FWS. 50 C.F.R. § 402.14. Effects determinations must be based on the sum of the direct, indirect, and cumulative effects of the action, added to the environmental baseline and interrelated and interdependent actions. *Id*. § 402.02 (defining "effects of the action."). The threshold for triggering consultation is low: if the action agency determines that its proposed action may affect any listed species or critical habitat, it must engage in formal or informal consultation with the FWS. 50 C.F.R. §§ 402.13, 402.14.

To complete informal consultation, the action agency must determine, with the written concurrence of the FWS, that the action is not likely to adversely affect listed species or critical habitat. 50 C.F.R. § 402.13(a). If the action is likely to adversely affect listed species or critical habitat, the action agency and FWS must engage in formal consultation. *Id*. § 402.14. To complete formal consultation if the agency action is not likely to result in jeopardy or destruction or adverse modification of critical habitat, the FWS must provide the action agency with a biological opinion, explaining how the proposed action will affect the listed species or habitat, together with an incidental take statement and any reasonable and prudent measures necessary to avoid jeopardy. 16 U.S.C. § 1536(b); 50 C.F.R. §§ 402.14(g)-(i). If the FWS, however, determines that the action is likely to jeopardize the species or result in the destruction or adverse modification of critical habitat, the agency "shall suggest those reasonable and prudent alternatives which [it] believes" would not result in jeopardy or adverse modification. 16 U.S.C. § 1536(b)(3).

The action agency also has a mandatory duty to confer with the FWS on any actions that are "likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat." 50 C.F.R. § 402.10(a). Although prior to final listing or final critical habitat designation, the conference opinion is advisory, not binding, the conference process "is designed to assist the Federal agency and any applicant in identifying and resolving potential conflicts at an early stage in the planning process." *Id*.

Throughout the consultation process, the FWS must use "the best scientific and commercial data available" to evaluate the impacts the action will have on listed species and to provide its "biological opinion" whether, as a result of those impacts, the action is likely to result in jeopardy or destruction of critical habitat. 16 U.S.C. §§ 1536(a)(2) & (b)(3); 50 C.F.R. § 402.14(g). The action agency also has an independent obligation to "use the best scientific and commercial data available" under Section 7. 16 U.S.C. § 1536(a)(2).

Once the action agency has initiated consultation, Section 7(d) prohibits it from making "any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate [ESA Section 7(a)(2)]. 16 U.S.C. § 1536(d); 50 C.F.R. § 402.09.

Section 9 of the ESA prohibits any person, including any federal agency, from "taking" any listed species without proper authorization through a valid incidental take permit. 16 U.S.C. § 1538(a)(1)(B); 50 C.F.R. § 17.31(a) (extending the "take" prohibition to threatened species). The term "take" is statutorily defined broadly as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(19). The definition of "harm" has been defined broadly by regulation as "an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." 50 C.F.R. § 17.3; *see also Babbitt v. Sweet Home Ch. Of Communities for a Great Oregon*, 515 U.S. 687 (1995) (upholding regulatory definition of harm). Courts have found federal agencies liable for unlawful take of listed species where agency-authorized activities resulted in the killing or harming of such species. *See, e.g., Defenders of Wildlife v. Adm'r, Envtl. Prot. Agency, 882 F.2d 1294* (8th Cir. 1989).

B. Clean Water Act

Congress enacted the Clean Water Act ("CWA") to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The Act establishes a goal of attaining "water quality which provides for the protection and propagation of fish, shellfish, and wildlife." *Id*. § 1251(a)(2). States are obligated to develop and implement standards for protection of water quality that conform to the minimum standards established by the EPA Administrator. Id. § 1313. Water quality standards consist of a designated use for the water bodies involved and water quality criteria that will protect the designated use, as well as an antidegradation policy to protect existing uses and maintain high water quality. *Id*. § 1313(c)(2)(A).

States that have been delegated authority to administer the CWA are required to adopt and periodically revise water quality standards. Pursuant to 33 U.S.C. § 1313(c)(1), states must hold public hearings and review their water quality standards at least once every three years, and, if appropriate, modify existing standards or adopt new standards. 40 C.F.R. § 131.20(a).

C. EPA's Approval of Montana's Revised Nutrient Water Quality Standards is Subject to ESA Section 7 Compliance

EPA must consult with the FWS on any of its agency actions "in which there is discretionary Federal involvement or control." 50 C.F.R. § 402.03. EPA's approval of revised state water quality standards pursuant to 33 U.S.C. § 1313 qualifies as an agency action over which EPA exercises considerable discretionary involvement and control. EPA has ample discretion in administering the state water quality standard review process "to consider the protection of threatened or endangered species as an end in itself." *Florida Key Deer v. Paulison*, 522 F.3d 1133, 1141 (11th Cir. 2008) (citing *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 671 (2007)).

EPA has long recognized its legal duties to comply with the substantive and procedural obligations of the ESA in the state water quality standard approval process. To enhance coordination between EPA and the wildlife agencies (the FWS and the National Marine Fisheries Service) in fulfilling these statutory responsibilities, the three federal agencies signed a memorandum of agreement ("MOA") in 2001. 66 Fed. Reg. 11,202 (Feb. 22, 2001). In responding to comments on the draft MOA's provisions relating to EPA's oversight of state water quality standards, EPA specifically acknowledges that its discretionary control over the approval process triggers its ESA obligations, rejecting comments to the contrary:

> [O]ur decision as to whether a particular standard meets the requirements of the CWA involves the exercise of considerable judgment. We believe that where approval of new or revised standards may have an effect on a listed species or critical habitat, consultation under section 7(a)(2) is required. . . . . [W]ater-dependent endangered and threatened species are an important component of the aquatic environment that the CWA is designed to protect, and steps to ensure the protection of those species are well within the scope of the CWA.

Id. at 11,206.

The MOA also acknowledges EPA's commitment to the timeframes and informational requirements set forth in the ESA's implementing regulations at 50 C.F.R. Part 402 to ensure that EPA can timely comply with its ESA consultation obligations while meeting its statutory and regulatory deadlines under the CWA. For example, generally speaking:

> EPA will strive to provide advance notice to the Services concerning anticipated consultations, to provide thorough biological evaluations, to comment promptly on draft opinions and to provide, where appropriate, additional available information requested by the Services. . . . Where EPA prepares a biological evaluation, EPA will attempt to

> provide the Services a biological evaluation at least 90 days before reaching a decision on the proposed action.

Id. at 11,210.

The MOA describes at length the coordination process EPA committed to undertake to ensure that its review of new and revised water quality standards complies with the ESA. *Id*. at 11,213-15. In particular, the MOA recognizes that the CWA's strict timeframes for approval or disapproval of a state's revised water quality standard requires close coordination between EPA and FWS; to that end, EPA stated its intentions to work with states to provide final drafts of revised water quality standards to FWS well in advance of the state's final submission to EPA. *Id*. at 11,214.

The MOA also memorializes EPA's recognition of its duty to confer with FWS pursuant to 50 C.F.R. § 402.10 if it determines that any CWA activities it authorizes, funds, or carries out are likely to jeopardize proposed species or result in the destruction or adverse modification of proposed critical habitat. 66 Fed. Reg. at 11,211.

II. Factual Background

A. EPA's Approval of Montana's Revised Nutrient Water Quality Standards

1. Montana's House Bill 664 (2025) Revisions to Nutrient Water Quality Standards

The revised water quality standards to which this notice letter pertains are Montana's elimination of numeric nutrient criteria pursuant to House Bill 664 of the 2025 Legislative Session.

House Bill 664 was submitted to EPA as a revision of water quality standards by the Montana Department of Environmental Quality (MDEQ) by letter dated May 6, 2025. As outlined by MDEQ's May 6 letter, the revisions of water quality standards entailed:

- Repeal of Montana's EPA-approved numeric nutrient criteria found in Department Circular 12-A and an immediate effective date;
- Repeal of MCA 75-5-321, ARM §§ 17.30.660, 17.30.1388;
- The bill also directs DEQ to do the following:
    - Amend specific department rules to remove all references to DEQ-12A, base numeric nutrient standards, and nutrient standards variances;
    - Repeal 12A as adopted into ARM on August 8, 2014;
    - Amend all guidance, assessment methods, total maximum daily load calculations, and other policies and guidance to eliminate reference to or reliance on DEQ 12A

Montana's May 6th letter to EPA pursuant to CWA Section 303(c) generally referenced the continued availability of state narrative standards, previously approved by EPA.

2. EPA's Role in Approving the Revised Nutrient Standards

As required by the CWA, EPA responded to DEQ's submission of HB 664's repeal of numeric nutrient standards by Action Letter dated Oct. 3, 2025, approving said elimination of numeric nutrient standards. In approving Montana's elimination of numeric nutrient criteria, EPA stated that "the CWA does not require states to adopt numeric nutrient criteria. In fact, EPA's regulations authorize states to adopt narrative criteria. *See* 40 C.F.R. § 131.11(a)-(b). Further, although laws that are not self-implementing are not typically WQS, EPA is acting to approve HB 664 since it was submitted as such. However, EPA will review Montana's regulations implementing HB 664 once those regulations are promulgated and sent to EPA in accordance with 40 C.F.R. § 131.6(e)." *Decision Letter* at 2.

EPA also stated that "approval of HB 664 comes on the heels of EPA's 2022 disapproval of Montana's Senate Bill (SB) 358 which, among other things, established a transition from numeric to narrative criteria for nutrients [.] This mandatory duty suit and EPA's subsequent disapproval of SB 358 was done prior to MDEQ's adoption of implementing regulations or any submission by the State of Montana[.]" To date, Montana has not adopted any implementing rules for its singular narrative water quality standard allegedly applicable to nutrient pollutants. *See* ARM 17.30.637. Nor has the State of Montana adopted narrative nutrient translator rules proposed, and subsequently abandoned, in the wake of SB 358 of the 2021 Montana Legislative Session.

In its May 10, 2022 Action Letter disapproving the State of Montana's first attempted repeal of numeric nutrient criteria, EPA made the following relevant findings:

> EPA is disapproving Section 2(1) of SB 358 because Section 2(1) revises the desired condition for the applicable waterbodies to be the condition described by the general narrative criteria (narrative criteria) only (i.e., no longer including the NNC) without adequate information to demonstrate that the narrative criteria alone protects the designated uses. The state's permitting record over the past two years demonstrates that the implementation of the narrative criteria alone does not protect the designated use, as required by 40 C.F.R. § 122.44(d)(1). Additionally, the narrative criteria alone, as informed by the record supporting the NNC, does not contain sufficient parameters or constituents to protect the designated use consistent with 40 C.F.R. § 131.11(a)(1). Applying a similar rationale, EPA is disapproving Section 3 and Section 4 of SB 358 because these sections revise the desired condition for the applicable waterbodies by mandating removal of any reference in Montana's regulations to the NNC by the Board (Section 3) and MDEQ (Section 4) without ensuring that the remaining criteria contain sufficient parameters or constituents to protect the designated use consistent with 40 C.F.R. § 131.11(a)(1). This deficiency is documented in the state's permitting record over the past two years.

As regards requirements of the ESA, the May 10, 2022 Action Letter also found that reaffirming the continued validity of numeric nutrient criteria and disapproving elimination of the same and a transition to narrative nutrient criteria was not an "action" under ESA Section 7(a)(2) because it did not authorize, fund, or carry out any program or activity, and even if it were an action, "EPA's disapproval will not result in a change to the existing WQS under the CWA." EPA Action Letter to MDEQ Director Chris Dorrington, May 10, 2022, Ref: 8WD-IO, pages 2-3.

Conversely, in EPA's October 3, 2025 Action Letter the agency admits it had "informal consultation with FWS on May 29, 2025, and transmitted its Biological Evaluation to FWS on September 30, 2025." May 10, 2025 Action Letter, page 4. EPA went on to state that the following rationale in light of ESA consultation admittedly not being completed before its decision approving repeal of Montana's numeric nutrient water quality standards:

> EPA's approval of the portion of Section 1 that pertains to deletion of the NNC and Section 2(1) of HB 664 pending completion of consultation under ESA Section 7(a)(2) is consistent with Section 7(d) of the ESA because it does not foreclose the formulation or implementation of any reasonable and prudent alternatives that might be determined to be appropriate. *See* 50 C.F.R. § 402.09. MDEQ will be able to translate the narrative relying upon the available science to provide the same level of protection for federally-listed species as afforded by the NNC. Application of the narrative criteria based on current and site-specific information should prevent adverse effects to listed species and designated critical habitat by minimizing algal biomass, preventing significant changes in the aquatic community, and providing the water quality (pH and dissolved oxygen) necessary to support aquatic life. EPA retains options available under CWA Section 303(c) for ensuring WQS are environmentally protective, including the authority under CWA Section 303(c)(4)(B) to take action, when necessary, regarding WQS for Montana. EPA can also encourage the State to consider listed species and designated critical habitat when it revises WQS to ensure protection of listed species.

B. Listed Species and Critical Habitat in Montana Are Affected by Montana's Revised Nutrient Water Quality Standards

Montana's waterways contain some of the last intact habitat and native populations of wild salmonids in the Lower 48. Montana is home to a wide range of species protected under the ESA, including a diversity of freshwater-dependent species.

FWS' online database reviews a long list of species that must be addressed in EPA's biological evaluation. An initial evaluation of each listed and candidate species potentially affected by changes to nutrient standards is necessary to determine whether the revised nutrient standards may affect listed, proposed for listing, and candidate species. Readily available information strongly suggests that threatened or endangered species protected under the ESA in Montana are likely to be adversely affected by the revised nutrient standards adopted in Montana. As a result, formal consultation will be required for EPA's approval of nutrient standard revisions.

1. The Elimination of Numeric Nutrient Water Quality Standards in Montana Will Adversely Affect ESA-Protected Species

Streams have varying background levels of nutrients from upstream, runoff, groundwater, and the air. Cycling of those nutrients is an important function of streams. When certain nutrients, namely nitrogen and phosphorus, are overabundant within a stream or water body, they have deleterious effects. Closely related to nutrient loading is the process referred to as eutrophication. Eutrophication means an increase in nutrient levels that triggers excessive algae/plant growth, leading to alterations in the water body, namely oxygen depletion. These changes cause death of

fish and other aquatic organisms, creating an entirely different aquatic environment. While eutrophication can happen naturally in some ecosystems, it is frequently human-caused; when it is, it occurs at a rapid rate, frequently leaving "dead zones" in water bodies.

Eutrophication and nutrient loading are well-known water pollution problems. In fact, Montana's 2014 adoption - and EPA's 2015 approval - of Montana's numeric nutrient criteria was aimed specifically at adopting ecoregional and biological response-based thresholds for preventing eutrophication and related harmful ecological responses that degraded designated uses and violate associated water quality parameters.

Montana's most recent 2020 Integrated Report illustrates that eutrophication and nutrient loading are existing problems in many water quality limited waterbodies in Montana. In its 2020 Integrated Report and 2022 Supplement, Montana identified sources of eutrophication/nutrients in water bodies that are water quality limited for these pollutants. *Id*. A wide variety of activities are implicated, including those that MDEQ permits such as mining, concentrated animal feeding operations, and municipal POTWs among others. Additionally, a whole host of other, largely non-point source discharges, also contribute to these water quality problems. Agriculture, livestock grazing, riparian habitat loss, and stream bank modifications are commons sources of nutrient pollution, as are urban pollution from stormwater and the like.

Rather than ameliorating these problems, Montana's elimination of numeric nutrient standards will cause existing nutrient-impaired waters to experience increased nutrient pollution and other waters to experience increased nutrient loading throughout the state. ESA-listed species that are freshwater dependent, depend on freshwater prey, and/or require freshwater for survival will be adversely affected throughout Montana by the revision of nutrient water quality standards.

Under HB 664, all references and usage of numeric nutrient criteria are stricken from state law and implementing guidance. What remains applicable to prohibit harmful nutrient pollutant loading is solely a singular, general, narrative water quality standard prohibiting degradation, but without any metrics or implementing rules for assuring fulfillment of the general goal of safeguarding designated uses and prohibiting harm to local waterways and wildlife. *See* ARM 17.30.637. Without any tools or implementing rules for achieving the salutary, but general, prohibitions of ARM 17.30.637, adverse effects on water quality and aquatic life are likely to occur before the narrative standard is triggered. Indeed, because adverse effects to aquatic life, including endangered and threatened species, are required for the narrative standard to apply in the first instance, the plain language of EPA's approval of elimination of Montana's numeric nutrient criteria automatically triggers the need for formal consultation.

2. EPA's Approval of Montana's Elimination of Numeric Nutrient Water Quality Standards Will Adversely Affect ESA-Protected Freshwater Species

ESA-protected freshwater fish are likely to be adversely affected by the revised standards because of the water quality impacts these standards are likely to create. Many freshwater species are adversely affected by nutrient loading and eutrophication. As many water bodies are water quality limited for these pollutants in Montana, *see supra*, the effects of the revised

nutrient standard on ESA-protected fish will be widespread and include urban areas, agricultural areas, and waterways near mines and industry.

An example of an ESA-listed fish that is likely to be adversely affected by Montana's revised nutrient water quality standards is the Bull Trout. The Bull trout is a sub-population of the salmonid family that is currently listed under the ESA. *See* 64 Fed. Reg. 58910 (November 1, 1999). Bull trout are threatened by "the combined effects of habitat degradation, fragmentation and alterations associated with dewatering, road construction and maintenance, mining, and grazing; the blockage of migratory corridors by dams or other diversion structures; poor water quality; incidental angler harvest; entrainment [.] into diversion channels; and introduced non-native species. *Id.* at 58910.

Of native salmonids in the Pacific Northwest of the United States, bull trout have the most specific habitat requirements, which are often referred to as “the four Cs”: cold, clean, complex, and connected habitat. Habitat components that influence bull trout distribution and abundance include water temperature, in-stream and stream-bank cover, channel form and stability, valley form, spawning and rearing substrate, and unobstructed migratory corridors. Juveniles remain in the substrate after hatching; the time from egg deposition to emergence of fry can exceed 200 days. During the relatively long incubation period in the gravel, bull trout eggs are especially vulnerable to fine sediments, streambed scour, and water quality degradation. *See* Five-Year Status Review: Summary and Evaluation, Bull Trout, USFWS, September 2024, p.6.

Nutrient loading of freshwater is directly linked to increased water temperatures, diminished dissolved oxygen in near-shore reaches, and eutrophication events, including but not limited to nuisance algal blooms that degrade substrate and foraging conditions. Numerous regulated point sources, and many non-point sources, discharge nutrient pollutants into waters designated as critical habitat for Bull Trout in Montana. Furthermore, many waterway segments designated as critical habitat for Bull Trout in Montana are in-fact impaired waters for nutrient pollution and remain listed on the state's 303(d).

III. Legal Violations

A. EPA Violates Section 7(A)(2) by Initiating but not Completing Consultation on its Approval of Montana's Revised Nutrient Water Quality Standards Before Approving Them

As shown above and admitted in EPA's October 3, 2025 Action Letter, EPA initiated but failed to complete consultation with FWS prior to approving Montana's revised water quality standards for nutrients. Indeed, given that EPA requested the FWS' review of its biological evaluation and concurrence with EPA's "not likely to adversely affect" determination on September 30, 2025, literally four days before EPA issued its approval and Action Letter to MDEQ, EPA made it impossible for the FWS to respond timely to the biological evaluation, let alone to complete timely evaluation.

EPA has entirely failed to comply with its procedural and substantive obligations under ESA Section 7(a)(2) to ensure against jeopardy to listed species and destruction or adverse

modification of critical habitat. 16 U.S.C. § 1536(a)(2). "The ESA mandates that defendants place conservation above any of the agency's competing interests." *Kentucky Heartwood v. Worthington*, 20 F. Supp. 2d 1076, 1083 (E.D. Ky. 1998). These procedural and substantive violations cannot be separated. Congress established the Section 7(a)(2) consultation procedure explicitly "to ensure compliance with the [ESA's] substantive provisions." *Thomas v. Peterson*, 753 F.2d 754, 764 (9th Cir. 1985). "If a project is allowed to proceed without substantial compliance with those procedural requirements, there can be no assurance that a violation of the ESA's substantive provisions will not result." Id. (citing Tenn. Valley Auth. v. Hill, 437 U.S. 153 (1978)); *see also Conner v. Burford*, 848 F.2d 1441, 1458 (9th Cir. 1988) (the ESA's "strict substantive provisions . . . justify more stringent enforcement of its procedural requirements, because the procedural requirements are designed to ensure compliance with the substantive provisions."); *Washington Toxics Coal. v. Envtl. Prot. Agency*, 413 F.3d 1024, 1034-35 (9th Cir. 2005).

EPA's violations of ESA Section 7(a)(2) in connection with its approvals of Montana's revised nutrient water quality standards are actionable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g)(1)(A). Should EPA fail to remedy these violations within the 60-day notice period, Commenters will commence suit to obtain all available judicial remedies.

B. EPA Violates Section 7(A)(4) By Approving Montana's Revision of Nutrient Water Quality Standards Without Determining Whether its Approval Would Jeopardize Proposed Species or Destroy or Adversely Modify Proposed Critical Habitat

On information and belief, EPA's biological evaluation failed to account for the effects of Montana's revised water quality standards on species proposed for listing and/or critical habitat proposed for designation, in violation of its obligation to confer with FWS on any actions that are "likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat." 50 C.F.R. § 402.10(a).

On information and belief, Commenters allege EPA's biological evaluation fail to identify or evaluate the fluvial arctic grayling, whose last remaining native habitat lies in the Big Hole River, for jeopardy or destruction or adverse modification of habitat. EPA's violations of ESA Section 7(a)(4) in connection with its approvals of Montana's revised nutrients water quality standards are actionable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g)(1)(A). Should EPA fail to remedy these violations within the 60-day notice period, Commenters will commence suit to obtain all available judicial remedies.

C. EPA Violates Section 7(D) by Making an Irreversible and Irretrievable Commitment of Resources Which May Foreclose Reasonable and Prudent Alternatives to Jeopardy

By prematurely approving Montana's revised water quality standards without first completing consultation with FWS in accordance with ESA Section 7(a)(2), EPAviolates the ESA's prohibitions against any irreversible and irretrievable commitment of resources that would

foreclose the formulation and implementation of reasonable and prudent alternatives to jeopardy. See 16 U.S.C. § 1536(d).

Congress specifically enacted Section 7(d) "to prevent Federal agencies from 'steamrolling' activity in order to secure completion of the projects regardless of their impact on endangered species." *Pac. Rivers Council v. Thomas*, 936 F. Supp. 738, 745 (D. Idaho 1996) (quoting *N. Slope Borough v. Andrus*, 486 F. Supp. 332, 356 (D.D.C. 1980), *aff'd in part and rev'd in part on other grounds*, 642 F.2d 589 (D.C. Cir. 1980)). Section 7(d) "clarifies the requirements" of Section 7(a)(2) to "ensur[e] that the status quo will be maintained during the consultation process." *Conner v. Burford*, 836 F.2d 1521, 1536 & n.34 (9th Cir. 1988).

By rushing to approve Montana's revised water quality standards for nutrients without obtaining a final concurrence or biological opinion from FWS – especially in light of the myriad harmful effects that less-stringent nutrient standards are likely to have on listed species and designated critical habitats – EPA has failed to maintain the status quo during the consultation process. MDEQ is now free, without any further action from EPA, to issue MPDES permits requiring permittees to comply with revised, narrative nutrient standards that are less protective of aquatic life, including listed species. Even if the revised standards are later made more stringent – including as a result of FWS consultation – MPDES permittees will benefit from the permit shield provision of the CWA, 33 U.S.C. § 1342(k).

The leading case interpreting the CWA's permit shield is *Piney Run Preservation Ass'n v. Cty. Comm'rs of Carroll Cty.*, 268 F.3d 255 (4th Cir. 2001). That case holds that the permit shield defense is available when: "(1) the permit holder complies with the express terms of the permit and with the Clean Water Act's disclosure requirements and (2) the permit holder does not make a discharge of pollutants that was not within the reasonable contemplation of the permitting authority at the time the permit was granted." *Id*. at 259; *see also Natural Res. Def. Council, Inc. v. Cty. of Los Angeles*, 725 F.3d 1194, 1204 (9th Cir. 2013) (citing *Piney Run's* general discussion of the permit shield); *Atl. States Legal Found., Inc. v. Eastman Kodak Co*., 12 F.3d 353, 356 (2d Cir. 1993).

The permit shield provision is "a major benefit to a permittee because it protects the permittee from any obligation to meet more stringent limitations promulgated by the EPA unless and until the permit expires." *Cty. of Los Angeles*, 725 F.3d at 1204 (emphasis added). As a result, "[w]here a permittee discharges pollutants in compliance with the terms of its NPDES permit, the permit acts to 'shield' the permittee from liability under the CWA." *Id*. (citing 33 U.S.C. § 1342(k)).

EPA periodically updates the effluent limitations applicable to particular categories of discharges as more is learned about those discharges and the technologies available to control them. *See, e.g*., 33 U.S.C. § 1311(d) (requiring periodic revision of technology-based effluent limitations). The permit shield is thus intended to allow permittees to continue utilizing their existing treatment practices and technologies until a permit is amended, revoked, or renewed, at which time permittees must make improvements to comply with any new effluent standards or other limitations to obtain a new permit.

On information and belief, EPA has taken the position in federal litigation over revisions to water quality standards that the permit shield provision protects NPDES permit holders from having to comply with subsequently-revised water quality standards until such time as the permit is amended or revoked by the state permitting agency, or until the permit expires by its own terms. Therefore, should the FWS determine at the conclusion of formal consultation that Montana's revised water quality standards for nutrients will result in jeopardy to any listed species or the destruction or adverse modification of any designated critical habitat, its options for reasonable and prudent alternatives, based on the status quo prior to EPA's approval, have been curtailed by EPA's premature action allowing Montana to proceed with MPDES permitting. Once such MPDES permits issue, EPA has no power to require their revocation or amendment to comply with more stringent standards that would ensure against jeopardy to species or destruction or adverse modification of critical habitat.

EPA's violations of ESA Section 7(d) in connection with its approvals of Montana's revised nutrients water quality standards are actionable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g)(1)(A). Should EPA fail to remedy these violations within the 60-day notice period, Commenters will commence suit to obtain all available judicial remedies.

D. EPA's Approval of Montana's Revised Nutrient Water Quality Standards Is Causing Take of ESA Protected Species

EPA is in violation of the prohibition on the "take" of listed species in Section 9 of the ESA. 16 U.S.C. § 1538(a)(1)(C) (prohibiting take by any person); *id*. § 1532(13) ("person" includes "any officer, employee, agent, department or instrumentality of the Federal Government"). As previously discussed, federal agencies are liable for take resulting from activities they approve. *Strahan v. Coxe*, 127 F.3d 155, 163 (1st Cir. 1997); *Loggerhead Turtle v. Cty. Council of Volusia Cty*., 148 F.3d 1231, 1251 (11th Cir. 1998); *Defenders of Wildlife v. Adm'r, Envtl. Prot. Agency*, 882 F.2d 1294 (8th Cir. 1989). By approving Montana's revised water quality standards without completing consultation with FWS, EPA (along with MDEQ and any new MPDES permittees permitted under the revised standards) are operating without take liability coverage.

Montana's revised water quality standards will cause take, including death and injury to ESA-listed species, either from direct impacts or from habitat modification. The revised nutrient criteria allow nutrient loading to the point that eutrophication or adverse effects on water quality parameters and the aquatic life result before action is required. These adverse effects will harass, harm, injure, and even lead to the death of ESA-protected species such as the Bull Trout.

In order to achieve safe harbor from ESA take liability for its approvals of Montana's revised water quality standards for nutrients and selenium, EPA (in addition to MDEQ and any newly permitted dischargers) must have written authorization from the FWS in the form of an incidental take statement ("ITS") issued as part of the FWS's biological opinion at the conclusion of formal consultation under Section 7. Because EPA has failed to carry out its obligations to comply with Section 7 and obtain an ITS from the FWS as part of a biological opinion, EPA is liable for violations of Section 9 of the ESA.

EPA's violations of ESA Section 9 in connection with its approvals of Montana's revised nutrients water quality standards are actionable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g)(1)(A). Should EPA fail to remedy these violations within the 60-day notice period, Commenters will commence suit to obtain all available judicial remedies.

Conclusion

If the EPA does not act to remedy these violations within 60 days, Commenters will initiate litigation in federal district court against the EPA to seek declaratory and injunctive relief and reasonable attorneys' fees and costs. If you have any questions or would like to discuss potential remedies prior to the expiration of this notice, please do not hesitate to contact us at the telephone numbers or email addresses below.

Sincerely,

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Attachments:

EPA October 3, 2025 Action Letter Approving Revisions to Montana's Nutrient Standards

REGION 8 ADMINISTRATOR
DENVER, CO 80202

SENT VIA EMAIL

Director Sonja Nowakowski
Montana Department of Environmental Quality
sonja.nowakowski@mt.gov

Subject: EPA's action on Montana's water quality standards in Sections 1, 2(1), and 5 of House Bill 664

Dear Director Nowakowski:

Thank you for your letter of May 7, 2025, submitting Montana House Bill 664 (HB 664), signed into law on May 1, 2025, to the U.S. Environmental Protection Agency (EPA) for review pursuant to Clean Water Act (CWA) section 303(c). HB 664 repealed the State of Montana's numeric criteria for nutrient water quality standards (WQS), leaving in place narrative criteria for nutrients. The submittal was accompanied by a certification letter from the Montana Department of Environmental Quality (MDEQ) Chief Legal Counsel, on designated authority from the Montana Attorney General, indicating that HB 664 was duly adopted into state law. This certification is in conformance with the minimum requirements for a WQS submission under EPA's regulations at 40 C.F.R. § 131.6(e).

HB 664 includes provisions that direct MDEQ to repeal MDEQ Circular DEQ-12A base numeric nutrient standards and to amend state regulations to remove all references to DEQ-12A, base numeric nutrient standards, and nutrient standards variances.[1] Separately, HB 664 also repeals the authorizing provision for nutrient standards variances contained in Administrative Rules of

[1] For purposes of today's action, the EPA interprets "nutrient standards variances" as articulated in Section 1 of HB 664 to refer to Montana's Circular DEQ-12B.

Montana (ARM) 17.30.660. While HB 664 is a legislative action directing MDEQ to make changes to its WQS regulations, and EPA would expect any corresponding regulatory changes to be submitted to EPA consistent with CWA section 303(c)(2), EPA acknowledges MDEQ's decision to submit the legislation as WQS for EPA's review.

This approval of HB 664 comes on the heels of EPA's 2022 disapproval of Montana's Senate Bill (SB) 358 which, among other things, established a transition from numeric to narrative criteria for nutrients. EPA disapproved SB 358 despite no submission to EPA as required by section 303 of the CWA. Instead, EPA acted in response to litigation brought by an environmental non-governmental organization alleging a mandatory duty for EPA to approve or disapprove of SB 358. This mandatory duty suit and EPA's subsequent disapproval of SB 358 was done prior to MDEQ's adoption of implementing regulations or any submission by the State of Montana, in a precedential action in contravention of the CWA's statutory scheme. *See* 33 U.S.C. 1313(c)(2)(A) ("Whenever the State revises or adopts a new standard, such revised or new standard shall be submitted to the Administrator."). Nothing in the CWA requires or permits EPA to examine state laws for what it determines to be WQS absent a submission to EPA by a state. To emphasize, such authority or mandatory duty on EPA's part is only triggered upon submission to EPA.

The CWA does not require states to adopt numeric nutrient criteria. In fact, EPA's regulations authorize states to adopt narrative criteria. *See* 40 C.F.R. § 131.11(a)-(b). Further, although laws that are not self-implementing are not typically WQS, EPA is acting to approve HB 664 since it was submitted as such. However, EPA will review Montana's regulations implementing HB 664 once those regulations are promulgated and sent to EPA in accordance with 40 C.F.R. § 131.6(e).

Therefore, as discussed below, EPA has reviewed the legislation and is approving the relevant provisions as consistent with the requirements of the CWA and 40 C.F.R. Part 131.

Clean Water Act Review Requirements

CWA section 303(c)(2) requires states and authorized Indian Tribes[2] to submit new or revised WQS to EPA for review. Following such a submission, EPA must approve or disapprove those submitted standards. CWA section 303(c)(3) requires EPA to determine whether the new or revised standards in state submissions are consistent with the applicable requirements of the Act.

[2] CWA section 518(e) specifically authorizes EPA to treat eligible Indian Tribes in the same manner as states for purposes of CWA section 303. *See also* 40 C.F.R. § 131.8.

Today's Action

EPA's review under the CWA is centered on whether the provisions are consistent with applicable requirements of the CWA and EPA's implementing regulations. EPA's review includes Section 1 of HB 664, Section 2(1) of HB 664, and Section 5 of HB 664 as it pertains to ARM 17.30.660.

Sections 1 and 2(1) of HB 664 serve to remove the applicable "base numeric nutrients standards," which EPA refers to as "numeric nutrient criteria" (NNC) in this document, and nutrient standards variances, leaving narrative criteria (ARM 17.30.637(1)) in place. EPA concludes that Montana's revised WQS meet requirements to protect designated uses (i.e., protection of aquatic life and recreation) under the CWA and its implementing regulations at 40 C.F.R. Part 131. EPA therefore approves Sections 1 and 2(1) of HB 664.

Section 5, pertaining to ARM 17.30.660 of HB 664, removes a previously approved WQS variance authorizing provision specifically for use with the NNC. EPA concludes this provision is consistent with the CWA and its implementing regulations because neither the CWA nor 40 C.F.R. Part 131 requires states to adopt authorizing provisions before being able to adopt WQS variances. EPA therefore approves Section 5 of HB 664 pertaining to ARM 17.30.660. To the extent that MDEQ prefers to have an authorizing provision before using WQS variances under state law, MDEQ has separate WQS variance authorizing provisions (ARM 17.30.661 and 662) that it could use to adopt a WQS variance for nutrients when implementing the narrative criteria. Any WQS variances must be submitted to EPA and obtain EPA approval to be effective for CWA purposes. *See* 40 C.F.R. § 131.14.

As a result of this determination, Sections 1, 2(1), and (5) of HB 664 pertaining to ARM 17.30.660 are effective for CWA purposes, including for implementation in the CWA Section 402 National Pollutant Discharge Elimination System (NPDES) permitting program (see 40 C.F.R. § 131.21(c)), as of the date of this letter. Other provisions of HB 664 do not constitute new or revised WQS requiring EPA action.

Endangered Species Act Requirements

In addition to EPA's review pursuant to section 303(c) of the CWA, section 7(a)(2) of the Endangered Species Act (ESA) requires federal agencies, in consultation with the National Marine Fisheries Service (NMFS) and/or the U.S. Fish and Wildlife Service (FWS), to ensure their discretionary actions are not likely to jeopardize the continued existence of federally listed species or result in the destruction or adverse modification of designated critical habitat of such species.

Regardless of whether or not EPA is required to consult on approvals of WQS, EPA nevertheless initiated informal consultation with FWS on May 29, 2025, and transmitted its Biological Evaluation to FWS on September 30, 2025.

EPA's approval of the portion of Section 1 that pertains to deletion of the NNC and Section 2(1) of HB 664 pending completion of consultation under ESA Section 7(a)(2) is consistent with Section 7(d) of the ESA because it does not foreclose the formulation or implementation of any reasonable and prudent alternatives that might be determined to be appropriate. *See* 50 C.F.R. § 402.09. MDEQ will be able to translate the narrative relying upon the available science to provide the same level of protection for federally-listed species as afforded by the NNC. Application of the narrative criteria based on current and site-specific information should prevent adverse effects to listed species and designated critical habitat by minimizing algal biomass, preventing significant changes in the aquatic community, and providing the water quality (pH and dissolved oxygen) necessary to support aquatic life. EPA retains options available under CWA Section 303(c) for ensuring WQS are environmentally protective, including the authority under CWA Section 303(c)(4)(B) to take action, when necessary, regarding WQS for Montana. EPA can also encourage the State to consider listed species and designated critical habitat when it revises WQS to ensure protection of listed species.

Indian Country and Lands of Exclusive Federal Jurisdiction

EPA's approval of Montana's WQS does not extend to Indian country as defined in 18 U.S.C. § 1151, or to lands of exclusive federal jurisdiction. Indian country in Montana generally includes (1) lands within the exterior boundaries of the following Indian reservations located within Montana: the Blackfeet Indian Reservation, the Crow Indian Reservation, the Flathead Reservation, the Fort Belknap Reservation, the Fort Peck Indian Reservation, the Northern Cheyenne Indian Reservation, and the Rocky Boy's Reservation; (2) any land held in trust by the United States for an Indian Tribe (including but not limited to the Little Shell Tribe of Chippewa Indians); and (3) any other areas that are "Indian country" within the meaning of 18 U.S.C. § 1151. EPA does not maintain a map or list delineating all lands of exclusive Federal jurisdiction. However, EPA is currently aware of the following lands of exclusive federal jurisdiction located within Montana: Glacier National Park, 16 U.S.C. § 163, Yellowstone National Park, 16 U.S.C. § 24, and the Little Bighorn Battlefield on the Crow Reservation, 46 Stat. 168. EPA, or EPA-authorized Indian Tribes, as appropriate, retain responsibilities under CWA section 303 in Indian country and in lands of exclusive federal jurisdiction. Today's action is not intended as an action to approve or disapprove WQS for waters within Indian country and in lands of exclusive federal jurisdiction.

Conclusion

EPA is pleased to support Montana in its work to implement the Clean Water Act and protect state waters.

Sincerely,

Cyrus M. Western
Regional Administrator

Enclosure

cc: Lindsey Krywaruchka, Administrator, Water Quality Division

Rationale for the EPA's Approval of Montana's Nutrient Provisions in Sections 1, 2(1), and 5 of House Bill 664

I. Background

A. Relevant Clean Water Act (CWA) Requirements

CWA section 303(c)(2)(A) specifies that water quality standards "shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation." Additionally, CWA section 303(c)(1) and (2)(A) provide that states review and, as appropriate, modify and adopt WQS, and submit such revised or new WQS to the EPA for review. CWA section 303(c)(2)(A) provides that such standards shall consist of the designated uses (e.g., protection of aquatic life, recreation in and on the water) of the navigable waters involved and the water quality criteria for such waters based upon such uses. Numeric criteria specify precise, measurable levels of pollutants, while narrative criteria describe desired water quality conditions in a qualitative way.

CWA Section 303(c)(2)(B) requires states to adopt numeric criteria for parameters listed as "priority pollutants" (toxic pollutants listed pursuant to CWA section 307(a)) for which the EPA has published recommended criteria under CWA Section 304(a)), where their discharge or presence in the affected waters could reasonably be expected to interfere with designated uses. Nutrients have not been identified as priority pollutants. Thus, there is no specific CWA requirement to adopt or retain numeric criteria for nutrients.

The EPA's implementing regulation requires states to adopt water quality criteria that protect the designated use and specifies that such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use. 40 C.F.R. § 131.11(a)(1). The portion of the regulation that implements CWA section 303(c)(2)(B), regarding priority pollutants, contains mandatory language. 40 C.F.R. § 131.11(a)(2). In contrast, the portion of the regulation that is not specific to priority pollutants uses the word "should." The latter portion provides that states should 1) establish numeric criteria based on CWA section 304(a) guidance, such guidance modified to reflect site-specific conditions, or other scientifically defensible methods, and 2) establish narrative criteria or criteria based upon biomonitoring methods where numerical criteria cannot be established or to supplement numerical criteria. 40 C.F.R. § 131.11(b). Thus, for non-priority pollutants such as nutrients, the regulation shows a preference for numeric criteria over narrative criteria but does not require numeric criteria.

B. History of Nutrient Criteria in Montana

Nutrients such as nitrogen and phosphorus are necessary to support the health and diversity of lakes and streams. Although nutrients are generally not considered to have toxic effects, elevated and sustained nutrient concentrations (nutrient enrichment) can lead to excess algae growth or other impacts to the biological community. Until 2014, Montana relied on a general narrative provision (ARM 17.30.637(1)) [1] as the sole basis to address nutrient enrichment.

In 2014, Montana Department of Environmental Quality (MDEQ) adopted WQS for nutrients and submitted the package to the EPA for action under CWA section 303(c). The standards included numeric nutrient criteria (NNC) for total nitrogen (TN) and total phosphorus (TP) to protect the designated uses of wadeable streams[2] and the Yellowstone River from the confluence of the Bighorn River to the state line with North Dakota, WQS variances[3] for nutrients justified based on the economic impacts of attaining the NNC for facilities discharging to these waters, and non-severability provisions linking the applicability of NNC to the availability of WQS variances for nutrients. MDEQ also retained the narrative criteria, which are the only WQS that have ever been in effect for nutrients for CWA purposes for lakes/reservoirs and all non-wadeable streams and rivers within Montana (except certain segments of the Yellowstone River). The EPA approved the NNC and WQS variances pursuant to CWA section 303(c) in 2015. In 2017, the EPA approved Montana's revised WQS variance for a subset of dischargers. The EPA subsequently approved the non-severability provisions in 2020.[4]

MDEQ considered multiple lines of evidence in establishing the 2014 NNC, including: (a) nutrient concentrations from reference distributions; (b) nitrogen to phosphorus (N:P) ratios observed at reference sites; and (c) thresholds identified in scientific studies derived from stressor-response

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[1] ARM 17.30.637 GENERAL PROHIBITIONS (1) State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will:… (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and (e) create conditions which produce undesirable aquatic life.

[2] A wadeable stream means a perennial or intermittent stream in which most of the wetted channel is safely wadeable by a person during baseflow conditions. Montana Department of Environmental Quality, Department Circular DEQ-12A, Montana Base Numeric Nutrient Standards, July 2014 edition.

[3] A WQS variance, as defined by the EPA, is a time-limited tool that states, territories, and authorized Tribes can use to improve water quality over time. 40 C.F.R. § 131.3(o). It allows for a temporary adjustment to the applicable designated use and criterion for a specific pollutant or water body, reflecting the highest attainable condition achievable during the variance period. 40 C.F.R. § 131.14. This approach provides flexibility while ensuring progress towards meeting water quality goals.

[4] Litigation occurred from 2016-2021 regarding the EPA's actions on Montana's nutrient WQS. On October 6, 2021, the U.S. Court of Appeals for the Ninth Circuit issued an opinion upholding the EPA's 2017 approval of Montana's WQS variance. *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, 15 F.4th 966 (9th Cir. 2021). Under a district court order issued on October 30, 2020, Montana's WQS variance approved by the EPA on October 31, 2017, and the state's numeric nutrient criteria approved by the EPA on February 26, 2015, remained in effect for CWA purposes until today's action. *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, No. CV16-52-GF-BMM, CV-20-27-BMM (D. Mont. Oct. 30, 2020).

analyses. The record accompanying MDEQ's 2014 adoption of the NNC and the EPA's 2015 CWA section 303(c) approval of the NNC documents the NNC are based on sound science and protective of designated uses, and that both TN and TP need to be addressed and limited to protect the applicable designated uses. The EPA is not aware of any information demonstrating that the science has changed to alter these conclusions, and the EPA continues to support dual nutrient control (TP and TN) as a general matter for purposes of developing NNC or translating narrative criteria.[5]

In 2021, Montana enacted state legislation (Senate Bill 358 or SB 358) directing MDEQ to write permits "in a manner consistent with" the narrative criteria; "delete all references to" the NNC and nutrient standards variances; and adopt rules related to Montana's existing narrative criteria that provide for the development of an adaptive management program. On May 10, 2022, the EPA acted on a subset of provisions in SB 358 that it found to be new or revised WQS. The EPA disapproved removal of the NNC because there was inadequate information at the time to demonstrate that narrative criteria alone protect the designated uses. The EPA concluded that the narrative criteria alone did not contain sufficient parameters or constituents to protect the designated use consistent with 40 C.F.R. § 131.11(a)(1), and cited the state's permitting record from July 2020 to March 2022 as evidence of the deficiency.[6,7] The provisions of SB 358 that the EPA disapproved in 2022 are very similar to the provisions of HB 664 that the EPA is approving today. However, the major difference in the approach taken by Montana's legislature between SB 358 and HB 664 is that SB 358 mandated MDEQ to develop rules governing how the state would implement the narrative criteria for nutrients, whereas HB 664 includes no such mandate.

Between the EPA's disapproval action on SB 358 and the state's 2025 legislative session, MDEQ worked on developing rules for an adaptive management program to provide an incremental, watershed approach for protecting and maintaining water quality but suspended rulemaking in 2024 due to stakeholder concerns. With respect to interpreting narrative criteria for nutrients, MDEQ's efforts focused on using available response parameters, such as biological indicators, plant growth, and dissolved oxygen, in conjunction with ranges of nutrient concentrations ("causal" parameters) by geographic region (western versus eastern Montana) and stream slope.[8] These efforts generated a wealth of new information that the state could use to translate the narrative criteria for CWA

[5] USEPA. Preventing Eutrophication: Scientific Support for Dual Nutrient Criteria. February 2015. Available at: www.epa.gov/sites/default/files/documents/nandpfactsheet.pdf.

[6] During much of 2020, MDEQ considered the NNC to be unavailable because it believed the non-severability clause had been triggered, with the effect of eliminating the NNC. In April 2021, the Montana legislature passed SB 358. Throughout this time, MDEQ generally applied the narrative criteria rather than the NNC for the purposes of NPDES permitting in determining whether a discharge had the reasonable potential to cause or contribute to an excursion of WQS.

[7] 40 C.F.R. § 131.11(a)(1) requires that criteria must be "based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use."

[8] The EPA has endorsed such a combined approach to integrate causal and response parameters to address nutrient enrichment in streams, producing guiding principles in 2013 (Guiding Principles on an Optional Approach for Developing and Implementing a Numeric Nutrient Criterion that Integrates Causal and Response Parameters. 2013. EPA-820-F-13-039. https://www.epa.gov/sites/production/files/2013-09/documents/guiding-principles.pdf).

implementation purposes, such as NPDES permitting. The EPA provided MDEQ with a comprehensive set of comments and recommendations on its proposed approach in June 2024.[9] Overall, the EPA supported the approach of using response variables in conjunction with nutrient concentrations but questioned whether some of the proposed response parameter thresholds were protective of the aquatic life use. This collaboration between MDEQ and the EPA highlighted the extent to which site-specific assessments could be valuable in tailoring an appropriate level of protection.

II. EPA Action on Section 1, Section 2(1), and Section 5 of HB 664 that Repeals ARM 17.30.660

A. Approval of Section 1 and 2(1) Removal of NNC and Nutrient Standards Variances

The EPA is approving the provisions of HB 664 that constitute revised WQS for the following three reasons: 1) there is no statutory or regulatory requirement for states or authorized Tribes to adopt numeric nutrient criteria or WQS variances; 2) Montana has a wealth of scientific information, including new information since the EPA's 2022 disapproval of NNC removal, to support translating general narrative criteria to site-specific, protective TN and TP levels to protect applicable designated uses; and 3) given that the state is now better positioned to effectively implement the narrative criteria, approval is consistent with the cooperative federalism principles embedded in the CWA.[10] Each one of these is discussed in more detail below.

Regarding requirements to adopt or retain numeric criteria, as described in the background section, neither the CWA nor EPA's implementing regulations require states or authorized Tribes to adopt numeric criteria for nutrients.

MDEQ's narrative criteria state: "State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will: …(d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and (e) create conditions which produce undesirable aquatic life." (Administrative Rules of Montana 17.30.637(1)). This narrative is comprehensive in identifying the potential adverse effects that are caused by nutrient enrichment and does not preclude consideration of any nutrient-related parameters or constituents that may need to be addressed to ensure protection of designated uses. Many states have adopted narrative criteria in their WQS regulations and rely solely on narrative criteria to address nutrient enrichment.[11] The EPA recently reiterated the flexibility states have to

[9] June 10, 2024, letter from Stephanie DeJong, EPA Region 8 Clean Water Branch Manager to Andy Ulven, MDEQ Water Quality Planning Bureau Chief.

[10] Cooperative federalism is a system where the federal and state governments collaborate and share power to implement policies and programs, emphasizing shared responsibility, mutual accountability, and flexibility. The CWA is a prime example of cooperative federalism in action, where the federal government and state governments share responsibility for protecting and restoring the nation's water quality.

[11] www.epa.gov/wqs-tech/state-specific-water-quality-standards-effective-under-clean-water-act-cwa

translate narrative criteria when advising states how to use the EPA's recommended models for deriving nutrient criteria for lakes, saying states "may rely on the recommended criteria as one approach to derive protective numeric targets to implement narrative criteria (i.e., both general, "free from" and nutrient specific narrative criteria) for CWA purposes."[12]

Additionally, states have the discretion to adopt WQS variances[13] when and where the designated use and associated criterion are shown to be unattainable for a period of time, consistent with 40 C.F.R. 131.14. WQS variances serve the national goal in Section 101(a)(2) of the CWA and the ultimate objective of the Act to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" by providing a mechanism to incrementally improve water quality in a transparent and accountable manner. 40 C.F.R. 131.14 serves to explicitly authorize states and authorized Tribes to use WQS variances where appropriate and consistent with the CWA and implementing regulation.[14] However, no state or authorized Tribe is required to use WQS variances. Therefore, MDEQ has the discretion to remove applicable WQS variances as it sees fit. As such, the EPA is approving the state's removal of the "nutrient standards variances" as specified in Section 1 of HB 664 and doing so means any nutrient WQS variance authorized in DEQ-12B is no longer applicable for CWA purposes. This action, however, does not preclude the state from adopting WQS variances that comply with the CWA and the federal regulation at 40 C.F.R. § 131.14, in the future.

Regarding the large volume of data and information Montana has available to translate narrative criteria, Montana has conducted studies to better evaluate the potential effects of nutrient enrichment.[15] MDEQ has studied the effects of nutrients on aquatic life and recreation in wadeable streams and large rivers: assembling existing data collected at high quality reference sites, conducting site-specific stressor-response studies, collecting data required to run mechanistic models to evaluate impacts of nutrient enrichment, and assembling relevant scientific literature. *Id.* More recently, as part of their follow up efforts after passage of SB 358, MDEQ produced several analyses that integrated physical and biological responses with levels of nutrient enrichment. For example, MDEQ produced an analysis of daily patterns of dissolved oxygen change in flowing waters of Montana (December 4, 2023)[16] and an identification of eutrophication thresholds associated with benthic macroinvertebrate condition in Montana streams (October 5, 2023).[17] The methods MDEQ explored reflected a new

[12] U.S. Environmental Protection Agency, October 2023. "Frequently Asked Questions: Implementing the 2021 Recommended Clean Water Act Section 304(a) Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs". EPA-820-R-23-008. https://www.epa.gov/system/files/documents/2023-10/faqs-implementing-lakes-reservoirs.pdf

[13] 40 C.F.R. § 131.14.

[14] *Water Quality Standards Regulatory Revisions*, 80 Fed. Reg. 51035 (August 21, 2015).

[15] *See e.g.*, MDEQ 2021. "Annotated Bibliography of the Principal DEQ Technical Reports Related to Nutrients, and a Bibliography of Peer-Reviewed Scientific Papers from the Department Related to Nutrients."

[16] Suplee, M., 2023. "An Analysis of Daily Patterns of Dissolved Oxygen Change in Flowing Waters of Montana. Prepared by the Montana Department of Environmental Quality, December 4, 2023.

[17] Schulte, N.O. and Craine, J.M., 2023. "Eutrophication thresholds associated with benthic macroinvertebrate condition in Montana streams". Prepared for the Montana Department of Environmental Quality, October 5, 2023.

approach for Montana that could be modified and adapted on a site-specific basis. Additionally, MDEQ has worked with watershed groups, dischargers and other organizations to collect watershed scale nutrient and biological information. MDEQ has ongoing plans to collect data during future permit cycles where data gaps exist. These recent studies and more localized datasets enable MDEQ to translate its narrative criteria on a more site-specific basis.[18]

In its submittal of HB 664, MDEQ stated it will implement the narrative criteria using the best available science. MDEQ also recently shared information with the EPA on its initial thoughts for implementing the narrative standard for NPDES permitting. The "checklist" MDEQ shared includes consideration of ecoregional ranges of protective TN and TP concentrations (which encompass the NNC values), stream reach-specific TN and TP criteria, consultation with staff with local waterbody expertise, and site-specific characteristics of the waterbody (including flow, substrate, continuously monitored dissolved oxygen, benthic algae quantification, expected extent of vascular aquatic plants, benthic aquatic insect indices, and diatom metrics). This site-specific information allows potential changes to the aquatic community to be evaluated using a robust set of indicators, in addition to TN or TP concentrations.

As a result, use of narrative criteria enables Montana to use the latest science and information, including the option to consider the ecoregional ranges used to develop the NNC and then tailor identification of protection needs to reflect localized stream characteristics. For nutrients, the physical setting and sensitivity of the water to adverse effects of enrichment often play a large role. Taking this tailored approach to interpreting the narrative criteria allows MDEQ to more specifically address protection of near-stream and downstream[19] waters.

Regarding cooperative federalism, the EPA recognizes the shared responsibilities it has with the state. In 2020, the EPA addressed the future effect of Montana removing the NNC and associated nutrient standards variances and reverting to the general narrative criteria. At that time, the EPA noted that it would be premature to predict how the state would implement its narrative criteria to address nutrients in the future and that the EPA could not reasonably assume Montana's implementation of its narrative criteria would prove inadequate given that the state had, even at that time, developed a much more robust understanding of the science of nutrient pollution and was thereby better equipped

[18] September 9, 2025, Memo to the File from Stephanie DeJong, Clean Water Branch Manager, EPA Region 8 re. Documentation of July 1, 2025, Meeting with MDEQ; July 1, 2025, Email and Attachments from Andy Ulven, Water Quality Planning Bureau Chief, MDEQ Water Quality Division, re. Implementation Documents, to Cyrus Western, Regional Administrator, EPA Region 8, et. al.; September 30, 2025, Memo to the File from Stephanie DeJong, Clean Water Branch Manager, EPA Region 8 re. Documentation of September 18, 2025, Meeting with MDEQ; October 2, 2025, Memo to the File from Stephanie DeJong, Clean Water Branch Manager, EPA Region 8 re. Documentation of September 30, 2025, Meeting with MDEQ and FWS.

[19] The EPA's implementing regulation at 40 C.F.R. § 131.10(b) requires states to ensure their WQS provide for the attainment and maintenance of the WQS of downstream waters. See also 40 C.F.R. § 122.44(d)(1): "each NPDES permit shall include…any requirements…necessary to achieve WQS established under section 303 of the CWA, including state narrative criteria for water quality."

than in the past to translate and implement the narrative criteria in NPDES permits.[20] In its 2022 disapproval of SB 358 removal of NNC, the EPA cited MDEQ's record of poor implementation in permits when relying solely on narrative protections. Since this time, as cited above, MDEQ has developed ways to incorporate response parameters information directly into the process of translating narrative criteria and plans to implement some of these concepts moving forward. With today's action, the EPA views the state as now better positioned to effectively implement the narrative criteria, as noted above, given the recent studies and more localized datasets that provide site-specific information collected on individual waterbodies, as well as information from MDEQ regarding plans for implementing the narrative.

The EPA retains oversight of state implementation programs and could, for example, object to permits where the water quality-based effluent limits do not appropriately derive from and comply with applicable WQS (including narrative criteria) using CWA section 402 authority or add waters to the state's list of impaired waters where existing and readily available information indicates that those waters are not meeting applicable WQS using CWA section 303(d) authority. In summary, under the cooperative federalism approach embedded in the CWA it is appropriate for the EPA to recognize the work Montana has done to improve its ability to implement the narrative criteria and, given that, allow Montana to use its preferred approach to setting criteria in WQS, while retaining the EPA's oversight responsibilities for programs that implement those WQS.

B. Approval of a Portion of Section 5 - Removal of Nutrient Standard Variances Authorizing Provision (ARM 17.30.660)

The EPA is approving the portion of Section 5 in HB 664 that repeals ARM 17.30.660. ARM 17.30.660 contains Montana's EPA-approved 2015 authorizing provision for individual and general nutrient WQS variances. A WQS variance authorizing provision is considered a general policy subject to the EPA's review and approval (40 C.F.R. 131.13). States are not required to adopt their own WQS variance authorizing provisions before adopting WQS variances (80 Fed. Reg. 51020, 51040 (Aug. 21, 2015)); however, some states have chosen to do so to clarify what information is necessary for the state to adopt WQS variances. The EPA's approval of this portion of Section 5 will result in the repeal of ARM 17.30.660, and thus, the removal of the state's 2015 authorizing provision for individual and general nutrient WQS variances. EPA's regulations do not require states to authorize WQS variances before adopting them. However, to the extent that MDEQ prefers to have an authorizing provision before using WQS variances under state law, MDEQ has separate WQS variance authorizing provisions (ARM 17.30.661 and 662) that it could use to adopt a WQS variance for the narrative nutrient criteria. Any WQS variance ultimately adopted by the state must comply with the federal regulation at 40 C.F.R. § 131.14 and is not effective for CWA purposes until the EPA approves the WQS variance (40 C.F.R. § 131.21(c)(2)).

[20] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency,* No. 4:20-cv-000027-BMM (D. Mont.), Defendants' Reply Memorandum in Support of Defendants' Cross-Motion for Summary Judgment at page 7 (Sept. 9, 2020).

EXHIBIT B - Montana's 2014 Submission of Numeric Nutrient WQS to EPA

Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

P. O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • Website: www.deq.mt.gov

August 8, 2014

Mr. Shaun McGrath, Administrator
U.S. Environmental Protection Agency (EPA) Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

Re: Montana's Submittal of Numeric Nutrient Standards for Surface Waters

Dear Mr. McGrath;

On July 25, 2014, Department of Environmental Quality director Tracy Stone-Manning and the Montana Board of Environmental Review (BER) each approved new regulations for addressing nitrogen and phosphorus concentrations in surface waters. These new rules and rule amendments implement Montana statute at 75-5-313, MCA, and are collectively referred to as the "nutrient standards package" herein. The nutrient standards package provides (via the BER's rules) numeric nutrient criteria in almost all streams in Montana as well as specific segments of the Yellowstone River, new mixing-zone rules including a low-flow design flow specific to nutrient discharges, and modifications to the state's nondegradation policy. The Department's component of the nutrient standards package details a standards variance process which will allow for steady, gradual attainment of the criteria over time. The Department rules and the BER-approved rules were designed to work together and we are therefore submitting them to you together, for your review.

Accompanying this cover letter is a CD rom which contains the key components of the nutrient standards package. The CD rom is organized into folders whose contents are outlined below.

1. **Comments**: Public comments (written, most received electronically) received during the public comment period (February 13 to April 1, 2014) on the Department and the BER rulemakings.
2. **Hearings_testimony**: Written testimony provided at the Department rulemaking public hearing and the BER rulemaking public hearing, each of which were held on March 24, 2014.
3. **NutrientStandardsRulesandCirculars**: The primary component of our submission to EPA. Montana Administrative Rule (MAR) Notice 17-355, the Department's variance rules, are provided; you will find both the proposal and adoption notices. MAR notice 17-356 is the BER's numeric nutrient standards and amendments (again, included are both the proposal and adoption notices). Two new Department circulars referenced in the rules are also included: Circular DEQ-12A, which contains the numeric nutrient standards, and Circular DEQ-12B, which addresses implementation of variances from the numeric nutrient standards.

4. **OtherPublicNotice**: The Department's cover letter to all persons on our interested parties list regarding the rulemaking. This was mailed in advance of the public hearings.
5. **SigninSheets:** Copies of the sign-in sheets from the two rulemaking public hearings.
6. **TechnicalSupportDocsForTheNutrientStandards:** This folder contains all of the technical and scientific documents which support the numeric nutrient standards, the new low-flow design flow, and methods used to assess ambient surface waters for compliance with the numeric nutrient standards.
7. **Transcripts:** Oral transcripts recorded at each of the public hearings as well as the transcript for the BER meeting on 7/25/2014 at which time the numeric nutrient standards were adopted.

Also enclosed is a letter certifying that the nutrient standards package was duly adopted pursuant to state law. As you are aware, the Department has worked long on these standards and their implementation; they would not have been completed without a great deal of input from affected communities, industries, environmental interests, and EPA. We look forward to yourreview.

Sincerely,

George Mathieus, Division Administrator
Planning, Prevention, and Assistance Division
Montana Department of Environmental Quality

Cc: Tina Laidlaw, EPA
Tracy Stone-Manning, DEQ
Mike Suplee, DEQ
John North, DEQ
Julie Dalsoglio, EPA

Encl: CD rom, certification letter

Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

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August 8, 2014

Mr. Shaun L. McGrath
Regional Administrator
U.S. EPA Region VIII
80C ESIC
1595 Wynkoop Street
Denver, CO 80202-1129

Dear Mr. McGrath:

As Chief Legal Counsel of the Department of Environmental Quality and as a Special Assistant Attorney General assigned to the Department of Environmental Quality, I hereby certify that the rule amendments adopted by the Montana Board of Environmental Review in Montana Administrative Register Notice 17-356 were duly adopted pursuant to and in accordance with Montana law. Included in this notice were numeric nutrient standards and amendments to various water quality rules to implement the numeric nutrient standards and variances. Also included in this rulemaking was Department Circular DEQ-12A, which contains the actual numeric nutrient standards.

I also certify that that the rule adopted by the Montana Department of Environmental Quality in Montana Administrative Register Notice 17-355 was duly adopted pursuant to and in accordance with Montana law. Included in this notice are New Rule I and Department Circular DEQ-12B, which is incorporated by reference in New Rule I. This rulemaking established procedures and limits to implement variances from numeric nutrient standards.

Sincerely,

John F. North
Chief Legal Counsel

c: Mike Suplee

JFN/ej

DEPARTMENT CIRCULAR

DEQ-12A

Montana Base Numeric Nutrient Standards

GENERAL INTRODUCTION

This circular (DEQ-12A) contains information pertaining to the base numeric nutrients standards (§75-5-103(2), MCA) and their implementation. This information includes the standards' concentration limits, where the standards apply, and their period of application. DEQ-12A is adopted by the Board of Environmental Review under its rulemaking authority in §75-5-301(2), MCA.

Circular DEQ-12B contains information about variances from the base numeric nutrient standards and is a separate document available from the Department. DEQ-12B addresses effluent treatment requirements associated with general nutrient standards variances, as well as effluent treatment requirements for individual nutrient standards variances and to whom these apply. Unlike DEQ-12A, DEQ-12B is not adopted by the Board of Environmental Review; DEQ-12B is adopted by the Department following its formal rulemaking process, pursuant to §75-5-313, MCA.

The Department has reviewed a considerable amount of scientific literature and has carried out scientific research on its own in order to derive the base numeric nutrient standards (see **References** in this circular). Because many of the base numeric nutrient standards are stringent and may be difficult for MPDES permit holders to meet in the short term, Montana's Legislature adopted laws (e.g., §75-5-313, MCA) allowing for the achievement of the standards over time via the variance procedures in Circular DEQ-12B. This approach should allow time for nitrogen and phosphorus removal technologies to improve and become less costly and to allow time for nonpoint sources of nitrogen and phosphorus pollution to be better addressed.

Circular DEQ-12A

JULY 2014 EDITION

1.0 Introduction

Elements comprising Circular DEQ-12A are found below. These elements are adopted by the Montana Board of Environmental Review. The nitrogen and phosphorus concentrations provided here have been set at levels that will protect beneficial uses and prevent exceedences of other surface water quality standards which are commonly linked to nitrogen and phosphorus concentrations (e.g., pH and dissolved oxygen; see Circular DEQ-7 for those standards). The nitrogen and phosphorus concentrations provided here also reflect the intent of the narrative standard at ARM 17.30.637(1)(e) and will preclude the need for case-by-case interpretations of that standard in most cases.

1.1 Definitions

1. **Ecoregion** means mapped regions of relative homogeneity in ecological systems derived from perceived patterns of a combination of causal and integrative factors including land use, land surface form, potential natural vegetation, soils, and geology. See also Endnote 1.

2. **Large river** means a perennial waterbody which has, during summer and fall baseflow (August 1 to October 31 each year), a wadeability index (product of river depth [in feet] and mean velocity [in ft/sec]) of 7.24 ft^2/sec or greater, a depth of 3.15 ft or greater, or a baseflow annual discharge of 1,500 ft^3/sec or greater. See also, Endnote 6.

3. **Total nitrogen** means the sum of all nitrate, nitrite, ammonia, and organic nitrogen, as N, in an unfiltered water sample. Total nitrogen in a sample may also be determined via persulfate digestion or as the sum of total kjeldahl nitrogen plus nitrate plus nitrite.

4. **Total phosphorus** means the sum of orthophosphates, polyphosphates, and organically bound phosphates, as P, in an unfiltered water sample. Total phosphorus may also be determined directly by persulfate digestion.

5. **Wadeable stream** means a perennial or intermittent stream in which most of the wetted channel is safely wadeable by a person during baseflow conditions.

2.0 Base Numeric Nutrient Standards

Table 12A-1 contains the base numeric nutrient standards for Montana's flowing waters. In **Table 12A-1** nutrient standards for wadeable streams are grouped by ecoregion, either at level III (coarse scale) or level IV (fine scale). Following the ecoregional standards is a list of wadeable streams with reach-specific standards. These waterbodies have characteristics disimilar from those of the ecoregions in which they reside and have therefore been provided reach-specific values. **For wadeable streams, the standards should be applied in this order: named stream reach first (if applicable) then level IV ecoregion (if applicable) then level III ecoregion. Table 12A-1** also contains a list of large river segments for which base numeric nutrient standards have been developed. Note that the ecoregional values in **Table 12A-1** do not apply to large rivers within those ecoregions. See Endnote 6 for a list of all large Montana rivers. If a particular large river reach is not listed in **Table 12A-1**, standards for it have not yet been developed.

Table 12A-2 is a placeholder table for future base numeric nutrient standards for Montana's lakes and reservoirs. The Department has not yet developed regional lake criteria, but it is expected that when they are developed they will be grouped by ecoregion. As such, placeholders for future ecoregionally-based criteria are provided in the table. The table also provides for lake-specific standards. The Department anticipates that reservoir standards will generally be developed case-by-case and, therefore, will be individually listed, as provided for in the table.

Table 12A-1. Base Numeric Nutrient Standards for Wadeable Streams in Different Montana Ecoregions. If standards have been developed for level IV ecoregions (subcomponents of the level III ecoregions) they are shown in italics below the applicable level III ecoregion. Individual reaches are in the continuation of this table.

			Numeric Nutrient Standard[4]	
Ecoregion[1,2] (level III or IV) and Number	**Ecoregion Level**	**Period When Criteria Apply[3]**	**Total Phosphorus (µg/L)**	**Total Nitrogen (µg/L)**
Northern Rockies (15)	III	July 1 to September 30	25	275
Canadian Rockies (41)	III	July 1 to September 30	25	325
Idaho Batholith (16)	III	July 1 to September 30	25	275
Middle Rockies (17)	III	July 1 to September 30	30	300
Absaroka-Gallatin Volcanic Mountains (17i)	IV	July 1 to September 30	105	250
Northwestern Glaciated Plains (42)	III	June 16 to September 30	110	1300
Sweetgrass Upland (42l), Milk River Pothole Upland (42n), Rocky Mountain Front Foothill Potholes (42q), and Foothill Grassland (42r)	IV	July 1 to September 30	80	560
Northwestern Great Plains (43) and Wyoming Basin (18)	III	July 1 to September 30	150	1300
River Breaks (43c)	IV	See Endnote 5	See Endnote 5	See Endnote 5
*Non-calcareous Foothill Grassland (43s), Shields-Smith Valleys (43t), Limy Foothill Grassland (43u), Pryor-Bighorn Foothills (43v), and Unglaciated Montana High Plains (43o)**	IV	July 1 to September 30	33	440

*For the Unglaciated High Plains ecoregion (43o), criteria only apply to the polygon located just south of Great Falls, MT.

[1] See Endnote 1

[2] See Endnote 2

[3] See Endnote 3

[4] See Endnote 4

Table 12A-1, Continued. Base Numeric Nutrient Standards for Individual Wadeable Streams (and Wadeable-stream Reaches), and Large-river Reaches.

Individual Stream or Reach Description[2]	Period When Criteria Apply[3]	Numeric Nutrient Standard[4]	
		Total Phosphorus (µg/L)	Total Nitrogen (µg/L)
Wadeable Streams: Clark Fork River basin			
Flint Creek, from Georgetown Lake outlet to the ecoregion 17ak boundary (46.4002, -113.3055)	July 1 to September 30	72	500
Wadeable Streams: Gallatin River basin			
Bozeman Creek, from headwaters to Forest Service Boundary (45.5833, -111.0184)	July 1 to September 30	105	250
Bozeman Creek, from Forest Service Boundary (45.5833, -111.0184) to mouth at East Gallatin River	July 1 to September 30	76	270
Hyalite Creek, from headwaters to Forest Service Boundary (45.5833,-111.0835)	July 1 to September 30	105	250
Hyalalite Creek, from Forest Service Boundary (45.5833,-111.0835) to mouth at East Gallatin River	July 1 to September 30	90	260
East Gallatin River between Bozeman Creek and Bridger Creek confluences	July 1 to September 30	50	290
East Gallatin River between Bridger Creek and Hyalite Creek confluences	July 1 to September 30	40	300
East Gallatin River between Hyalite Creek and Smith Creek confluences	July 1 to September 30	60	290
East Gallatin River from Smith Creek confluence mouth (Gallatin River)	July 1 to September 30	40	300
Large Rivers[6]:			
Yellowstone River (Bighorn River confluence to Powder River confluence)	August 1 -October 31	55	655
Yellowstone River (Powder River confluence to stateline)	August 1 -October 31	95	815

[2] See Endnote 2

[3] See Endnote 3

[4] See Endnote 4

[6] See Endnote 6

Table 12A-2. Base Numeric Nutrient Standards and Other Standards for Lakes and Reservoirs.

		Numeric Nutrient Standard[7]		
Ecoregion[1] (level III) and Number, or Individual Lake or Reservoir Description	**Period of Application**	**Total Phosphorus (µg/L)**	**Total Nitrogen (µg/L)**	**Other Standards[8]**
LAKES/RESERVOIRS by ecoregion:				
Middle Rockies (17)	Year-round	[]	[]	
Northern Rockies (15)	Year-round	[]	[]	
Canadian Rockies (41)	Year-round	[]	[]	
Idaho Batholith (16)	Year-round	[]	[]	
LAKE SPECIFIC CRITERIA:				
	Year-round	[]	[]	
RESERVOIR SPECIFIC CRITERIA:				
	Year-round	[]	[]	

[1] See Endnote 1

[7] See Endnote 7

[8] See Endnote 8

2.1 Required Reporting Values for Base Numeric Nutrient Standards

Table 12A-3 presents the required reporting values (RRVs) for total phosphorus and total nitrogen, as well as the RRVs for nitrogen fractions that can be used to compute total nitrogen.

Table 12A-3. Required reporting values[a,b] for total nitrogen and phosphorus measurements.

Nutrient		Method of Measurement	Required Reporting Value
Total phosphorus		Persulfate digestion	3 µg/L
Total nitrogen		Persulfate digestion	70 µg/L
Total nitrogen	Sum of:	(a) total kjeldahl nitrogen	225 µg/L
		(b) nitrate + nitrite	See RRVs below
Nitrate- as N			20 µg/L
Nitrite- as N			10 µg/L
Nitrate + Nitrite-as N			20 µg/L

[a] See definition for required reporting values found in footnote 19 of Department Circular DEQ-7.

[b] Concentrations in Table 12A-3 must be achieved unless otherwise specified in a permit, approval, or authorization issued by the Department (DEQ-7; ARM 17.30.702).

2.2 Developing Permit Limits for Base Numeric Nutrient Standards

For total nitrogen and total phosphorus, the critical low-flow for the design of disposal systems shall be based on the seasonal 14Q5 of the receiving water (ARM 17.30.635(2)). When developing permit limits for base numeric nutrient standards, the Department will use an average monthly limit (AML) only, based on a calendar month, using methods appropriate for criterion continuous concentrations (i.e., chronic concentrations). Permit limits will be established using a value corresponding to the 95th percentile probability distribution of the effluent. Nitrogen and phosphorus concentrations of the receiving waterbody upstream of the discharge may be characterized using other frequency distribution percentiles. The Department shall use methods that are appropriate for criterion continuous concentrations which are found in the document "*Technical Support Document for Water Quality-based Toxics Control*," Document No. EPA/505/2-90-001, United States Environmental Protection Agency, 1991.

3.0 Endnotes

(1) Ecoregions are based on the 2009 version (version 2) of the U.S. Environmental Protection Agency maps. These can be found at: http://www.epa.gov/wed/pages/ecoregions/mt_eco.htm . For Geographic Information System (GIS) use within the Department, the GIS layers may be found at: L:\DEQ\Layers\Reference\Ecoregions.lyr

(2) Within and among the geographic regions or watersheds listed, base numeric nutrient standards of the downstream reaches or other downstream waterbodies must continue to be maintained. Where possible, modeling methods will be utilized to determine the limitations required which provide for the attainment and maintenance of water quality standards of downstream waterbodies.

(3) For the purposes of ambient surface water monitoring and assessment only, a ten-day window (plus/minus) on the beginning and ending dates of the period when the criteria apply is allowed in order to accommodate year-specific conditions (an early-ending spring runoff, for example).

(4) The average concentration during a period when the standards apply may not exceed the standards more than once in any five-year period, on average.

(5) In this level IV ecoregion, the narrative standard for nuisance aquatic life (ARM 17.30.637(1)(e)) applies in lieu of specific base numeric nutrient standards.

(6) **Table E-1** below shows the beginning and ending locations for large rivers in Montana.

Table E-1. Large river segments within the state of Montana.

River Name	Segment Description
Big Horn River	Yellowtail Dam to mouth
Clark Fork River	Bitterroot River to state-line
Flathead River	Origin to mouth
Kootenai River	Libby Dam to state-line
Madison River	Ennis Lake to mouth
Missouri River	Origin to state-line
South Fork Flathead River	Hungry Horse Dam to mouth
Yellowstone River	State-line to state-line

(7) No lake or reservoir in **Table12A-2** shall have a total nutrient concentration that exceeds the values shown, as an annual average, more than once in any three year period, on average. The Department will determine on a case-by-case basis whether or not a permitted discharge to a stream or river is likely to be affecting any downstream lake or reservoir. If so, the permittee would be required to meet its average monthly nutrient limit year-round.

(8) Parameters listed under this column are standards specific to lakes and reservoirs.

4.0 References

The following are citations for key scientific and technical literature used to derive the base numeric nutrient standards. This is not a complete list; rather, it contains the most pertinent citations. Many other articles and reports were reviewed during the development of the standards.

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EXHIBIT C - EPA's 2015 Action Letter Approving Montana's Numeric Nutrient WQS

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FEB 26 2015

Ref: 8EPR-EP

Tom Livers, Acting Director
Montana Department of Environmental Quality
P.O. Box 200901
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Robin Shropshire, Chairman
Montana Board of Environmental Review
Montana Department of Environmental Quality
P.O. Box 200901
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Re: EPA Action on Montana's Numeric Nutrient Criteria and Variance Rules

Dear Mr. Livers and Ms. Shropshire:

The U.S. Environmental Protection Agency Region 8 has completed its review of Montana's new and revised water quality standards for nutrients and is approving the water quality standards as described in the enclosure. The Montana Department of Environmental Quality (Montana or MDEQ) and the Montana Board of Environmental Review (BER or the Board) adopted these revisions on July 25, 2014, and submitted the revisions to the EPA for review pursuant to 40 CFR Section 131.20(c). The submission included: (1) a copy of the adopted amendments and supporting materials; (2) notice of final adoption of the amendments with the state's response to comments; and (3) a letter certifying that the amendments and water quality standards were adopted in accordance with state law. Receipt of this submission on August 15, 2014, initiated the EPA's review pursuant to Section 303(c) of the Clean Water Act (CWA or the Act) and the federal water quality standards implementing regulation (40 CFR Part 131).

We commend the MDEQ and the BER for adopting protective numeric nutrient criteria for total nitrogen and total phosphorus to address nutrient pollution in Montana's surface waters. Montana's nutrient rules include:

- Adoption of numeric nutrient criteria (referred to as "base numeric nutrient standards" in the state's documents) for wadeable streams (Department Circular DEQ-12A);
- Adoption of numeric nutrient criteria (NNC) for segments of the Yellowstone River (Department Circular DEQ-12A);
- A general variance authorizing provision and general variances for public and private dischargers applicable for up to 20 years to waters with numeric nutrient criteria (Department Circular DEQ-12B); and
- Individual variance procedures applicable to waters with numeric nutrient criteria (Department Circular DEQ-12B).

The adopted water quality criteria and variance provisions that are the subject of today's action are scientifically defensible, well supported by the record and consistent with CWA requirements. The EPA looks forward to continuing to work with Montana to protect and improve surface water quality within the state. As a result of the water quality standards, the EPA expects that concentrations of nutrients in Montana surface waters will decline over time.

Clean Water Act Review Requirements

The CWA Section 303(c)(2) requires states and authorized Indian tribes[1] to submit new or revised water quality standards (WQS) to the EPA for review. The EPA is required to review and approve or disapprove, the submitted standards. The Region's goal has been, and will continue to be, to work closely with states and authorized tribes throughout the standards revision process to help ensure that submitted water quality standards adopted by states are consistent with CWA requirements. Pursuant to 40 CFR Section 131.21(c), new or revised state standards submitted to the EPA after May 30, 2000, are not effective for CWA purposes until approved by the EPA. 65 Fed. Reg. 24653 (April 27, 2000).

Today's Action

Today the EPA is approving a number of water quality standards provisions discussed below, including numeric nutrient criteria and variance provisions. The EPA has concluded that the adopted provisions are consistent with the requirements of the Clean Water Act and the EPA's implementing regulations. The enclosure contains a more detailed rationale for today's action.

Endangered Species Act Requirements

The EPA's approval of Montana's water quality standards is considered a federal action which may be subject to the Section 7(a)(2) consultation requirements of the Endangered Species Act (ESA). Section 7(a)(2) of the ESA states that "each federal agency … shall …insure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined to be critical…"

The EPA's approval of new or revised water quality standards, therefore, may be subject to the results of consultation with the U.S. Fish and Wildlife Service (Service) pursuant to Section 7(a)(2) of the ESA. Nevertheless, the EPA also has a CWA obligation, as a separate matter, to complete its WQS action. Therefore, in acting on the state's WQS today, the EPA is completing its CWA Section 303(c) responsibilities.

The EPA's approval of the following water quality standards revisions is not subject to ESA consultation because either the actions will have "no effect" on listed aquatic and aquatic-dependent species or the EPA does not have discretion to act upon listed species as discussed in more detail below. All other provisions (i.e., low flow provisions, numeric nutrient criteria, the general variances, individual variance provisions) are approved by the EPA today subject to ESA consultation.

[1] CWA Section 518(e) specifically authorizes EPA to treat eligible Indian tribes in the same manner as states for purposes of CWA Section 303. See also 40 CFR Section 131.8.

No effect revisions

- New Definitions
  - The new definitions are consistent with the EPA's regulations and guidance and support the new Department Circular DEQ-12A. The EPA has determined that its approval of the new definitions will not change the existing environmental conditions. Therefore, ESA consultation is not required.
- Non-substantive edits
  - The EPA considers non-substantive edits to existing WQS to constitute new or revised WQS to ensure public transparency.[2] Montana adopted several revisions that would be included in this category. These revisions do not substantively change the meaning or intent of the existing WQS; therefore, the EPA has determined that these revisions will have no effect on listed species.
- Individual and general variance authorizing provisions
  - ARM 17.30.660(1) is merely an authorizing policy (40 CFR § 131.13) and thus has no effect on listed or proposed endangered or threatened species or critical habitat. As a result, no consultation is required.

No discretion revisions

- Antidegradation revisions
  - Montana revised their existing antidegradation rule ("nondegradation rule") to consider nutrients as a "harmful" parameter for nondegradation purposes instead of as "toxic". The basis for the EPA's conclusion that approval of antidegradation revisions is not subject to ESA consultation is discussed in "Antidegradation Policy Approvals and Endangered Species Act Consultations." Memorandum from Geoff Grubbs, Director, Office of Science and Technology, to Water Management Division Directors, Regions 1 - 10, January 27, 2005. Since the MT antidegradation revisions meet the EPA's regulatory requirements, the EPA has no relevant discretion for ESA purposes.

Indian Country

The WQS approvals in today's letter apply only to waterbodies in the state of Montana, and do not apply to waters that are within Indian country, as defined in 18 U.S.C. Section 1151. "Indian country" includes any land held in trust by the United States for an Indian tribe and any other areas defined as "Indian country" within the meaning of 18 U.S.C. Section 1151. Today's letter is not intended as an action to approve or disapprove water quality standards applying to waters within Indian country. The EPA, or authorized Indian tribes, as appropriate, will retain responsibilities for water quality standards for waters within Indian country.

Conclusion

The EPA Region 8 thanks MDEQ and the Board for their efforts to develop and adopt numeric nutrient criteria for Montana. The nutrient criteria and variance provisions represent significant progress towards addressing nutrient pollution issues in the state. The EPA looks forward to working with MDEQ to

[2] See EPA's October 2012 *What is a New or Revised Water Quality Standard Under CWA 303(c)(3)?-- Frequently Asked Questions* available at http://water.epa.gov/scitech/swguidance/standards/cwa303faq.cfm.

make additional improvements to the state's water quality standards in the future. If you have any questions, please call Tina Laidlaw on my staff at (406) 457-5016.

Sincerely,

Martin Hestmark
Assistant Regional Administrator
Office of Ecosystems Protection
and Remediation

Enclosures

cc: George Mathieus, Division Administrator
Montana Department of Environmental Quality

Connie Howe
Crow Tribe
(via email)

Charlene Alden
Northern Cheyenne Tribe
(via email)

Gerald Wagner
Blackfeet Tribe
(via email)

Joe LaFromboise and Jay Eagleman
Chippewa Cree Tribe
(via email)

Mike Durglo
Confederated Salish and Kootenai Tribe
(via email)

Ina Nez Perce
Fort Belknap Indian Community
(via email)

Deb Madison
Fort Peck Tribes
(via email)

Rationale for the EPA's Action on Montana's New and Revised Water Quality Standards

Today's EPA action letter addresses Montana's new and revised water quality standards for nutrient pollution adopted by the Board and MDEQ on July 25, 2014, including revisions made to Administrative Rules of Montana (ARM) Title 17, Chapter 30 (Water Quality), Sub-chapters 5 (Mixing Zones), 6 (Surface Water Quality Standards and Procedures), and 7 (Nondegradation) as well as adoption of new Department Circulars DEQ-12A and -12B.[3] This enclosure provides a rationale for the action taken by the EPA.

NONSUBSTANTIVE CHANGES TO EXISTING WATER QUALITY STANDARDS

The EPA considers non-substantive edits to existing water quality standards to constitute new or revised water quality standards that the EPA has the authority and duty to approve or disapprove under CWA Section 303(c)(3).[4] Montana adopted several revisions that would be included in this category such as: spelling corrections; adding or removing the word "and"; or numbering changes. The list below identifies those revisions that the EPA considers as non-substantive changes to water quality standards. While these revisions do not substantively change the meaning or intent of the existing water quality standards, the EPA believes it is reasonable to treat such non-substantive changes in this manner to ensure public transparency of which provisions are effective for CWA purposes. Accordingly, all non-substantive revisions to the ARM (Sections 17.30.201(6)(f); 17.30.507(1); 17.30.516(3); 17.30.619(1)(c) and (d); 17.30.619(3); 17.30.622(3)(h) and (i); 17.30.623(2)(h) and (i); 17.30.624(2)(h) and (i); 17.30.625(2)(h) and (i); 17.30.626(2)(h) and (i); 17.30.627(2)(h) and (i); 17.30.628(2)(j) and (k); 17.30.629(2)(h) and (i); 17.30.702; 17.30.702(17) through (20); 17.30.702(22); 17.30.702(27)(c) through (e); 17.30.702(25) and (26); and 17.30.702(27)(c) through (e); 17.30.715(h) are approved.

DEFINITIONS

Montana's nutrient pollution rules include the following definitions:

- Section 1.1 of Department Circular DEQ-12A includes definitions for the following terms: ecoregion, large river, total nitrogen, total phosphorus, and wadeable stream.
- ARM Sections 17.30.602(33) and 17.30.702(23) include revisions to the methods for calculating total nitrogen (TN) concentrations. The language cites the persulfate digestion method for determining total nitrogen and specifies the nutrient fractions (i.e., nitrate, nitrite, ammonia, and organic nitrogen, as N) that can be summed to calculate the total nitrogen concentration. ARM Sections 17.30.602(34) and 17.30.702(24) include similar revisions to the definitions for total phosphorus.
- ARM Sections 17.30.602(39), 17.30.619(1)(a), and 17.30.702(27)(a) modify the reference to nutrient standards previously contained in Circular DEQ-7. Water quality standards for nutrients (total nitrogen (TN) and total phosphorus (TP)) are now contained in Circular DEQ-12A. Human health-based water quality standards for nitrate, nitrate + nitrite, and nitrite, which have toxic effects, will remain in Circular DEQ-7.

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[3] Department Circular DEQ-12A and Department Circular DEQ-12B have been incorporated by reference into Montana's existing water quality standards at ARM 17.30.507(1)(a); 17.30.619(1)(e); 17.30.660(1); and 17.30.660(8) which provides additional assurances that these Circulars are legally binding.

[4] See EPA's October 2012 *What is a New or Revised Water Quality Standard Under CWA 303(c)(3)?*- Frequently Asked Questions available at http://water.epa.gov/scitech/swguidance/standards/cwa303faq.cfm.

- ARM Sections 17.30.602(40) and 17.30.702(27)(b) include a description of Circular DEQ-12A ("Montana Base Numeric Nutrient Standards"). Circular DEQ-12A contains Montana's adopted numeric nutrient criteria (NNC) for TN and TP.
- ARM Section 17.30.602(41) includes a reference to Department Circular DEQ-12B ("Montana Base Numeric Nutrient Standards Variances"). Circular DEQ-12B describes the requirements for the general variances for nutrients and the procedures for obtaining an individual nutrient variance. Any future approved individual variances will be contained in Circular DEQ-12B.
- ARM Section 17.30.702(17) was repealed because the definition of "nutrients" as inorganic nitrogen and inorganic phosphorus does not align with the numeric criteria adopted in Department Circular DEQ-12A for total nitrogen and total phosphorus.

The EPA has reviewed these definitions and considers them to be scientifically sound and consistent with the requirements of 40 CFR Part 131 as discussed below. Therefore, these provisions are approved.

CRITICAL LOW FLOW PROVISIONS

Section 2.2 in Department Circular DEQ-12A and revisions to Sections ARM 17.30.516 (3)(e) and (4) and ARM 17.30.635(2) identify critical low flows for purposes of calculating water quality-based effluent limitations (WQBELs) for nutrients to be included in CWA National Pollutant Discharge Elimination System (NPDES) permits.

ARM 17.30.516(3):

(e) Facilities that discharge the parameters found in Department Circular DEQ-12A to surface water. Discharge limitations must be based on dilution with the entire seasonal 14-day, five-year (seasonal 14Q5) low flow of the receiving water without the discharge.

ARM 17.30.635: General Treatment Standards

(2) For total nitrogen and total phosphorus, the stream flow dilution requirements must be based on the seasonal 14Q5, which is the lowest average 14 consecutive day low flow, occurring from July through October, with an average recurrent frequency of once in five years.

ARM 17.30.516(4) specifies that, for nutrients only, mixing zone determinations are based on the seasonal 14Q5 low flow.

Montana typically uses a 7Q10 (seven-day, ten-year design flow) as the critical low flow for determining the allowable permitted discharge for toxics and other parameters. Since nutrients (i.e., TN, TP) are generally not toxic, Montana explored different options for selecting the critical low flow and determined that a seasonal 14-day, 5-year design flow was appropriate for discharges containing nutrients. The basis for the low flow provisions is described in a memo to the BER.[5] Montana used algal growth rates derived from laboratory studies to model the time (measured in days) it would take to reach peak algal biomass in a stream. Applying the model, the state estimated the number of days it would take before algal biomass concentrations reached nuisance bloom levels of 150 mg/m^2.[6] Results showed that peak algal biomass was achieved in 14-days, on average. However, depending on the initial biomass used in the model, this estimate could be over or under protective. Therefore, Montana compared the

[5] Memo from Mike Suplee and Kyle Flynn, MDEQ, to the Board of Environmental Review, 19 March 2014.
[6] Suplee, M.W;V. Watson, M.E. Teply, and H. McKee. 2009. How Green is Too Green? Public Opinion of what Constitutes Undesirable Algae Levels in Streams. Journal of the American Water Resources Association 45: 123-140.

proposed duration to results from the whole-stream nutrient enrichment study conducted in eastern Montana. Results from that study showed that peak biomass was reached approximately 20 days after the start of the nutrient additions. This comparison validated Montana's selection of a 14-day duration low flow period associated with the NNC.

Basis for Approval

The EPA's water quality standards regulation explains that "States may, at their discretion, include in their State standards, policies generally affecting their application and implementation, such as mixing zones, low flows and variances. Such policies are subject to EPA review and approval (40 CFR § 131.13)." The revision to Montana's low flow provisions for nutrients identifies river and stream low flows, for use in calculating nutrient WQBELs, which are consistent with the adopted NNC. Montana's NNC are average growing season concentrations that cannot be exceeded more than once in every five years. The EPA reviews low flow provisions to ensure they are consistent with the duration and frequency provisions of the criterion. Montana selected a 14Q5 low flow provision that is shorter in duration (and therefore protective) than the NNC which are expressed as seasonal average criteria. Therefore, the EPA finds that Montana's low flow provision is appropriate and will support WQBELs that derive from and comply with the NNC.

The EPA concludes that Montana's low-flow provisions are appropriate because the duration and frequency of the flows support calculation of WQBELs that derive from and comply with the NNC.[7] (See 40 CFR § 131.11, 40 CFR § 131.13). Accordingly, the EPA approves these provisions.

ANTIDEGRADATION

Montana removed the term "nutrients" from ARM 17.30.715(c) and revised ARM 17.30.715(f) to include the parameters listed in DEQ-12-A (TN and TP). The practical effect of this revision is that it changes the nonsignificance threshold that applies to TN and TP from the 15% of the lowest applicable standard that applies to "toxic" parameters, to the one that applies to "harmful" parameters which is 10% of the applicable standard and existing water quality less than 40% of the standard. The state did not change the nonsignificance thresholds that apply to toxic or harmful parameters, it simply reclassified TN and TP from toxic to harmful.

Basis for Approval

The EPA's WQS regulation requires states to adopt an antidegradation policy and identify implementation procedures that at a minimum are consistent with 40 CFR § 131.12(a)(1-4). As described in the EPA Water Quality Standards Handbook (1994), "EPA's review of the implementation procedures is limited to ensuring that procedures are included that describe how the State will implement the required elements of the antidegradation review. The EPA may disapprove and federally promulgate all or part of an implementation process for antidegradation if, in the judgment of the Administrator, the State's process (or certain provisions thereof) can be implemented in such a way as to circumvent the intent and purpose of the antidegradation policy."

The EPA has reviewed the revisions to ARM 17.30.715(1)(c) and (f) and determined that they do not undermine the intent and purpose of Montana's nondegradation policy. Changing the significance test

[7] The EPA guidance on critical low flow provisions is available on the website at: http://water.epa.gov/scitech/swguidance/standards/handbook/chapter05.cfm#section52.

that applies to TN and TP from toxic to harmful continues to protect assimilative capacity for these parameters where it exists, which is clearly consistent with the intent and purpose of the nondegradation policy.

In addition, the environmental effects of TN and TP are not consistent with Montana's definition of the term "toxic". Montana defines a "toxic" parameter as: "A toxin is any chemical which has an immediate, deleterious effect on the metabolism of a living organism."[8] In contrast, the environmental effects of elevated levels of nitrogen and phosphorus may include excess algal growth; lower dissolved oxygen concentrations or increased fluctuations in dissolved oxygen and pH; decreased water clarity; and loss of sensitive species.

The EPA concludes these revisions are consistent with 40 CFR § 131.12 and are approved.

NONSEVERABILITY PROVISION

Montana included in its regulations (ARM 17.30.619(2) and 17.30.715(4)) a provision that calls for the voiding of *all* adopted NNC and all variances should one of three triggering events occur. The EPA is committed to continuing its collaboration with the state to implement this nutrient rule approach consistent with CWA requirements, including the adoption of variances established by and consistent with ARM 17.30.660 and Montana Circular DEQ-12B. Thus, the EPA believes it was inadvisable for the state to include such a provision. The EPA is not acting on this provision today.

NUMERIC NUTRIENT CRITERIA

Clean Water Act requirements relating to Numeric Nutrient Criteria

In reviewing water quality criteria, the EPA determines whether the criteria protect the designated use and are based on a sound scientific rationale. *See* 40 CFR § 131.5(a)(2), (5); 131.6(b)-(c) and 131.11(a). The regulations also require that for waters with multiple use designations, the criteria shall support the most sensitive use. 40 CFR § 131.11(a). As discussed below, the EPA has determined that Montana's NNC adopted in DEQ-12A are consistent with CWA requirements.

EPA Recommendations on Deriving Numeric Nutrient Criteria

For over a decade, the EPA has recognized the importance of developing numeric water quality criteria to protect the designated uses of waterbodies from nutrient pollution that is associated with increases in concentrations of nitrogen and phosphorus. In general, the EPA recommends three types of scientifically defensible approaches for setting numeric criteria to address nitrogen and phosphorus pollution: reference condition approach, stressor-response analysis, and mechanistic modeling.[9,10] The reference condition approach relies on data collected at minimally disturbed reference sites to characterize natural background conditions using percentiles of the frequency distribution from the reference dataset.

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[8] Montana DEQ, Planning Prevention and Assistance Division, Water Quality Planning Bureau, Water Quality Standards Section. 2012. DEQ-7 Montana Numeric Water Quality Standards. Helena, MT: Montana Dept. of Environmental Quality.

[9] U.S. EPA. 2000. Nutrient Criteria Technical Guidance Manual: Rivers and Streams. EPA-822-B-00002. http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/rivers/index.cfm. Washington, DC.

[10] U.S. EPA. 2010. Using Stressor-response Relationships to Derive Numeric Nutrient Criteria. EPA-820-S-10-001. Washington, DC.

Deriving nutrient criteria using stressor-response analysis provides an empirical representation of the known causal relationship between increased nutrients and ecological effects. In this approach, the known causal relationship has been established in the scientific literature by observational and manipulative studies. Mechanistic modeling refers to use of watershed models, hydrodynamic models or water quality models to determine NNC. A modeling approach to setting nutrient criteria allows the user to test the interactions between different nutrient loading scenarios, the response endpoint(s), and the candidate nutrient criteria. As discussed in detail below, Montana used a combination of reference and stressor-response approaches that is consistent with the EPA's recommendation to derive the NNC for nitrogen and phosphorus and therefore EPA has concluded that Montana's NNC are based on sound science.

Water Quality Standards: Department Circular DEQ-12A Sections 2.0 and 3.0:

Montana promulgated nutrient water quality standards including numeric criteria for total nitrogen and total phosphorus for all wadeable streams, segments of the Yellowstone River, and site-specific nitrogen and phosphorus criteria for several segments in the Gallatin watershed. Table 12A-1 of Circular DEQ-12A Section 2.0 (Table 1) summarizes the NNC approved by the BER and defines the index period when the criteria apply.

Table 1. Montana's Numeric Criteria for TN and TP for Wadeable Streams

Table 12A-1. Base Numeric Nutrient Standards for Wadeable Streams in Different Montana Ecoregions. If standards have been developed for level IV ecoregions (subcomponents of the level III ecoregions) they are shown in italics below the applicable level III ecoregion. Individual reaches are in the continuation of this table.

			Numeric Nutrient Standard[4]	
Ecoregion[1,2] (level III or IV) and Number	Ecoregion Level	Period When Criteria Apply[3]	Total Phosphorus (µg/L)	Total Nitrogen (µg/L)
Northern Rockies (15)	III	July 1 to September 30	25	275
Canadian Rockies (41)	III	July 1 to September 30	25	325
Idaho Batholith (16)	III	July 1 to September 30	25	275
Middle Rockies (17)	III	July 1 to September 30	30	300
Absaroka-Gallatin Volcanic Mountains (17i)	IV	July 1 to September 30	105	250
Northwestern Glaciated Plains (42)	III	June 16 to September 30	110	1300
Sweetgrass Upland (42l), Milk River Pothole Upland (42n), Rocky Mountain Front Foothill Potholes (42q), and Foothill Grassland (42r)	IV	July 1 to September 30	80	560
Northwestern Great Plains (43) and Wyoming Basin (18)	III	July 1 to September 30	150	1300
River Breaks (43c)	IV	See Endnote 5	See Endnote 5	See Endnote 5
*Non-calcareous Foothill Grassland (43s), Shields-Smith Valleys (43t), Limy Foothill Grassland (43u), Pryor-Bighorn Foothills (43v), and Unglaciated Montana High Plains (43o)**	IV	July 1 to September 30	33	440

*For the Unglaciated High Plains ecoregion (43o), criteria only apply to the polygon located just south of Great Falls, MT.

Derivation of the Wadeable Streams Nutrient Criteria Based on Omernik[11] Ecoregions

Montana evaluated several approaches (e.g., lithologic groupings, stream order) to characterize the natural variability in nutrient concentrations before selecting Omernik level III ecoregions as the preferred classification scheme. The state's analysis showed statistically significant differences in median nutrient concentrations between level III and level IV ecoregions. However, data limitations precluded establishment of NNC at a finer scale (Omernik level IV) on a statewide basis. The state's analysis and the EPA guidance[12] support Montana's decision to derive NNC at the ecoregion level III scale as being scientifically sound.

Montana followed a multi-step process to establish numeric criteria for TN and TP for wadeable streams. Aquatic life use support was identified as the most sensitive use. By establishing NNC that protect the most sensitive use, Montana's NNC also ensure protection of other designated uses such as recreational use support and drinking water.

1. Montana first characterized nutrient concentrations at reference sites where the aquatic life use was met located within the level III ecoregion.

2. Next, Montana reviewed dose-response studies that were conducted within similar ecoregions and documented in the scientific literature. For each study, Montana identified the nutrient threshold associated with the response endpoint (e.g., algal biomass, diatom or macroinvertebrate metric).

3. Montana used the information obtained from these two approaches (reference and dose-response) as multiple lines of evidence to establish numeric criteria for nitrogen and phosphorus for that ecoregion. Preliminary nutrient criteria were selected using a combination of nutrient percentiles observed at reference sites coupled with thresholds obtained from the relevant stressor-response studies.

4. As a final step in the process, Montana evaluated the nitrogen to phosphorus ratio (N:P ratio / Redfield ratio) associated with the adopted criteria to ensure it was similar to N:P ratios observed at reference sites. N:P ratios can indicate whether nitrogen, phosphorus, or both, are the are the "limiting nutrient" (nutrient in short supply) that constrains algal growth. This final "check" on the proposed criteria ensures that the NNC do not inadvertently alter the limiting nutrient, causing a naturally N-limited stream to become P-limited (or vice versa).

For sites where data were readily available to support the use of level IV ecoregions, Montana established numeric criteria for TN and TP. Examples of level IV ecoregional criteria for TN and TP include (1) the Absaroka-Gallatin Volcanic Mountains where natural background nutrient concentrations are higher than the ecoregion level III nutrient criteria and (2) several level IV ecoregions that reflect transition zones from the mountains to the plains (e.g., Sweetgrass Upland, Pryor-Bighorn Foothills). If dose-response studies were not available for these smaller areas, Montana examined the nutrient concentrations observed in the reference distribution and used the nutrient to benthic chlorophyll-a relationship to calculate the final criteria.

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[11] Omernik, J.M. Ecoregions of the Conterminous United States. *Ann Assoc Am Geogr* 77, 118-125 (1987).
[12] U.S. EPA. 2000. Nutrient Criteria Technical Guidance Manual: Rivers and Streams. EPA-822-B-00002. http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/rivers/index.cfm. Washington, DC.

Scientific justification for Montana's approach can be found in the May 2013 *Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers,*[13] along with an earlier version of the document published in 2008.[14] Section 3 of Montana's 2013 technical rationale synthesizes the information used to derive the numeric criteria in a concise and easy-to-follow format. For each ecoregion, the document presents: (1) an ecoregional map; (2) recommended numeric criteria; (3) regional reference population descriptive statistics; (4) comparison of the recommended criteria to the ecoregional reference distribution; (5) summary of any relevant dose-response studies; and (6) a conclusion section containing a brief rationale justifying the recommended ecoregional criteria and an evaluation of N:P ratios.

In its scientific justification, Montana recognizes that the ecoregionally-derived nutrient criteria may need to be refined to reflect site-specific considerations, especially in situations where it can be demonstrated that natural background nutrient concentrations exceed the state's ecoregional nutrient criteria and designated uses are supported. To facilitate development of site-specific criteria, Montana described several approaches for deriving site-specific criteria in Section 6.0 of their implementation guidance.[15] Methods include empirically-derived site-specific criteria based on a robust suite of causal and response variable data, or use of a mechanistic model to set protective criteria. The EPA looks forward to working with the state when the state develops such new or revised criteria in the future.

For all NNC adopted by Montana for wadeable streams and rivers, Department Circular DEQ-12A defines the duration and frequency associated with the standard as: "The average concentration during a period when the standards apply may not exceed the standards more than once in any five-year period, on average." (Section 3.0, Endnote 4)

Basis for Approval

Based on review of the Montana's 2008 and 2013 scientific rationales and the comments and technical information submitted to the BER during the state's rulemaking process, the EPA has concluded that the NNC are consistent with CWA requirements discussed above.

In deriving NNC for wadeable streams, Montana independently applied two of the EPA-recommended approaches for deriving NNC (i.e., reference, stressor-response) to build a sound scientific justification for the adopted criteria. In reviewing Montana's scientific rationale, the EPA examined the multiple lines of evidence considered by Montana in establishing the NNC for wadeable streams. Nutrient information gathered from a comprehensive statewide network of reference sites provided useful information on natural background nutrient concentrations observed across Montana. Additionally, the EPA worked closely with Montana to assist the state with developing a rigorous approach to identifying a network of reference sites that represent minimally disturbed reference conditions of aquatic life designated uses. Montana documented their reference screening approach and reference site selection criteria in the 2005 document, "*Identification and Assessment of Montana Reference Streams: A Follow-up and Expansion of the 1992 Benchmark Biology Study*".

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[13] Suplee, M. W., and V. Watson, 2013. Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers—Update 1. Helena, MT: Montana Dept. of Environmental Quality.
[14] Suplee, Michael W., V. Watson, A. Varghese, and Joshua Cleland. 2008. Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers. Helena, MT: MDEQ Water Quality Planning Bureau.
[15] Montana Department of Environmental Quality, 2014. Base Numeric Nutrient Standards Implementation Guidance. Version 1.0. Helena, MT. Montana Dept. of Environmental Quality.

Incorporation of nutrient thresholds identified in regionally relevant dose-response studies further strengthened the state's technical basis for establishing criteria. The state's presentation of the scientific literature provided a sound scientific justification of thresholds associated with impacts to aquatic life and recreational uses observed in studies conducted by academicians, state agencies and other governmental entities (e.g., U.S. Geological Survey). In the 2008 technical basis for the NNC, several peer reviewers (including the EPA) noted the lack of nutrient enrichment studies associated with plains streams. To address these concerns, Montana designed and implemented a whole-stream nutrient addition study on a reference stream in eastern Montana.[16] The purpose of the study was to evaluate the impacts to aquatic life associated with excess algal growth from elevated nutrient levels. Montana used the results from this study to identify stressor-response thresholds for plains streams. The study provided a tremendous amount of useful information that Montana considered in deriving the adopted NNC for plains streams. In addition, the information gathered from Montana's dose-response study strengthened the scientific basis for establishing NNC in plains streams based on stressor-response analysis.

Throughout Montana's NNC development process, the EPA reviewed the state's draft technical documents and provided written comments as well as informal feedback. The EPA also conducted an external independent peer review of the state's preliminary technical rationales for wadeable streams produced in 2008 and 2012. Overall, the peer reviews demonstrated support for Montana's approach as a scientifically sound and defensible basis for developing NNC in wadeable streams. Peer review comments and Montana's response to the comments can be found in the state's technical rationale.[17,18]

The EPA examined Montana's synthesis of the technical basis for the adopted NNC for each ecoregion. For each ecoregion, Montana presented the reference information in addition to the relevant stressor-response studies and offered a detailed and transparent discussion of the basis for the adopted criteria. Montana's integration of multiple approaches -- results from stressor-response studies; understanding of reference conditions; nutrient limitations -- minimizes the uncertainty associated with a single approach and further strengthens the technical basis for the final NNC values.

Therefore, the EPA has determined that the NNC provisions are consistent with the federal requirements because, as discussed above, the state has demonstrated that the NNC for wadeable streams will protect aquatic life and recreational designated uses and are based on a sound scientific rationale that is consistent with the EPA guidance on deriving NNC using scientifically defensible methods. Accordingly, the EPA approves Montana's NNC.

Derivation of Nutrient Criteria for the Yellowstone River

In order to derive NNC for the lower Yellowstone River, Montana chose to utilize an enhanced mechanistic model (QUAL2K). Given the complexity and unique characteristics of large river systems like the Yellowstone, as well as the challenges with determining reference condition for large rivers, Montana determined that utilization of the QUAL2K model to simulate benthic algal growth in the river would be a scientifically defensible approach.

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[16] Suplee, M.W., and R. Sada de Suplee. 2011 Assessment Methodology for Determining Wadeable Stream Impairment Due to Excess Nitrogen and Phosphorus Levels. Helena, MT: Montana Dept. of Environmental Quality. See Appendix B.1.2.
[17] Suplee, M. W., and V. Watson, 2013. Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers—Update 1. Helena, MT: Montana Dept. of Environmental Quality.
[18] See Peer Review Memorandum of 2008 document available at:
http://www.deq.mt.gov/wqinfo/standards/NumericNutrientCriteria.mcpx.

Mechanistic modeling is an additional approach recommended by the EPA for establishing defensible NNC. Mechanistic models integrate nutrient-sensitive assessment endpoints and water quality targets to derive protective NNC. Montana spent considerable time and resources to collect the necessary suite of data needed to calibrate and validate the model. Model development is described in more detail below.

After calibrating the model, Montana ran a series of modeling scenarios to simulate the effect of increasing nutrient concentrations on different eutrophication response endpoints associated with impacts to aquatic life, drinking water, and recreational use support (e.g., pH, dissolved oxygen (DO), benthic chlorophyll, total organic carbon, total dissolved oxygen gas). Model simulations of nutrient additions showed that the most sensitive response endpoints (associated with different designated uses) varied between the upper and lower river reaches. Montana then derived the TN and TP criteria necessary to protect the most sensitive use for each segment. For the upper segment of the Yellowstone River (Big Horn River confluence to Powder River confluence), pH was the most sensitive endpoint, indicating that aquatic life use is the most sensitive use. In contrast, for the lower river (Powder River confluence to the state line), the benthic chlorophyll-a threshold (150 mg/m^2) associated with recreational use impacts was the most sensitive response endpoint. As a final step, Montana compared the final numeric criteria to nutrient concentrations in the scientific literature where observed impacts to similar response endpoints have been documented.[19]

Table 2. Numeric Nutrient Criteria for the Yellowstone River

		Numeric Nutrient Standard*	
Individual Stream or Reach Description	**Period When Criteria Apply**	**Total Phosphorus (µg/L)**	**Total Nitrogen (µg/L)**
Yellowstone River (Bighorn River confluence to Powder River confluence)	August 1-October 31	55	655
Yellowstone River(Powder River confluence to stateline)	August 1-October 31	95	815

*The average concentration during a period when the standards apply may not exceed the standards more than once in any five-year period, on average.

Basis for Approval

In reviewing the TN and TP criteria for the segments of the Yellowstone River, the EPA examined the modeling details including: calibration and validation results; simulated response endpoints used to set the criteria; modeled nutrient addition scenarios; design flow; and model uncertainty. Montana tested different simulated response endpoints to confirm that the adopted criteria were protective of the most sensitive use, which for the Yellowstone River included both aquatic life use (upper segment) and recreational use support (lower segment). The EPA reviewed the response indicators applied in the model; model assumptions; and uncertainty factors considered in establishing thresholds. From the review, EPA confirmed the model was developed from a robust dataset; is well calibrated; and accurately simulates nutrient effects on response endpoints. The EPA therefore concludes that the

[19] Montana's detailed scientific basis for TN and TP criteria for segments of the mainstem Yellowstone River can be found in the May 2013 document "*Using a computer water quality model to derive numeric nutrient criteria: Lower Yellowstone River.*"

application of Montana's model for the Yellowstone River produced NNC that are scientifically defensible and protective of designated uses.

In addition to the EPA's internal review, the Agency conducted an external independent peer review of the state's preliminary modeling report describing the scientific basis for the adopted numeric criteria for the mainstem Yellowstone River.[20] Montana responded to reviewer comments in the final report and addressed many of technical issues noted in the comments.

Based on the EPA's review of the technical rationale developed by Montana, the EPA has concluded that the adopted NNC provisions are consistent with 40 CFR § 131.11(a)(1) of EPA's water quality standards regulation. The EPA approves Montana's NNC for the Yellowstone River.

Reach-Specific Criteria: Gallatin Watershed

In addition to the ecoregionally-derived nitrogen and phosphorus criteria for wadeable streams, Department Circular DEQ-12A includes site-specific nutrient criteria for one waterbody in the Clark Fork River basin and eight stream segments in the Gallatin watershed. See Table 1.
For the eight stream segments in the Gallatin watershed, Montana refined the numeric criteria for TN and TP to reflect the contributions of known geologic sources of phosphorus associated with Phosphoria deposits.[21] Portions of the two main tributaries to the Gallatin River, Bozeman and Hyalite Creek, are located within the level IV Absaroka-Gallatin-Volcanic Mountains ecoregion. Montana established level IV nutrient criteria for this area to reflect the naturally elevated total phosphorus concentrations found in these watersheds.[22]

Reach-specific criteria for the tributaries to the Gallatin watershed were calculated using a simple mixing equation to apply in specific locations situations (see below). Natural background (NB) represents the 75th percentile nutrient concentration observed in the reference population from the different contributing ecoregions.[23] This concentration (NB) is multiplied by the average summer flows (Q) for each ecoregional zone to reflect the relative contribution from each area.

$$NB_{NEW} = \frac{(NB_1 * Q_1) + (NB_2 * Q_2)}{Q_1 + Q_2}$$

Following this process, Montana derived reach-specific criteria for Bozeman and Hyalite Creek (See Table 1).[24]

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[20] Peer review comments and Montana's response to the comments can be found in the state's technical rationale: Flynn, Kyle and Michael W. Suplee. 2013. Using a computer water quality model to derive numeric nutrient criteria: Lower Yellowstone River. WQPBDMSTECH-22. Helena, MT: Montana Dept. of Environmental Quality.
[21] Scientific justification for MDEQ's approach can be found on pages 4-4 to 4-8 of the May 2013 document: Suplee, Michael W., V. Watson, A. Varghese, and Joshua Cleland. 2008. *Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers*. Helena, MT: MDEQ Water Quality Planning Bureau.
[22] Id.
[23] The 75th percentile is consistent with EPA's guidance on establishing nutrient criteria for rivers and streams. http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/rivers/index.cfm.
[24] Id.

Table 1. Reach Specific Nutrient Criteria for the Gallatin River Basin

		Numeric Nutrient Standard*	
Individual Stream or Reach Description	**Period When Criteria Apply**	**Total Phosphorus (µg/L)**	**Total Nitrogen (µg/L)**
Wadeable Streams: Gallatin River Basin			
Bozeman Creek, from headwaters to Forest Service Boundary (45.5833, -111.0184)	July 1 to September 30	105	250
Bozeman Creek, from Forest Service Boundary (45.5833, -111.0184) to mouth at East Gallatin River	July 1 to September 30	76	270
Hyalite Creek, from headwaters to Forest Service Boundary (45.5833, -111.0835)	July 1 to September 30	105	250
Hyalite Creek, from Forest Service Boundary (45.5833, -111.0835) to mouth at East Gallatin River	July 1 to September 30	90	260
East Gallatin River, between Bozeman Creek and Bridger Creek confluences	July 1 to September 30	50	290
East Gallatin River, between Bridger Creek and Hyalite Creek confluences	July 1 to September 30	40	300
East Gallatin River, between Hyalite Creek and Smith Creek confluences	July 1 to September 30	60	290
East Gallatin River, between Smith Creek confluence to mouth (Gallatin River)	July 1 to September 30	40	300

*The average concentration during a period when the standards apply may not exceed the standards more than once in any five-year period, on average.

Basis for Approval

The EPA's water quality standard regulation gives states the discretion and flexibility to establish site-specific criteria that reflect site-specific conditions (40 CFR § 131.11(b)(1)) so long as the criteria protect the designated use and are based on a sound scientific justification. In addition, the Agency produced a memo indicating that states may establish site-specific numeric aquatic life criteria by setting the criteria value equal to natural background.[25]

The EPA has reviewed Montana's reach-specific criteria derived for stream segments in the Gallatin watershed and determined that the criteria reflect natural background conditions associated with phosphorus-rich geologic formations based on nutrient concentrations observed at reference sites from the contributing ecoregions.[26] The Agency also conducted an external independent peer review of the state's preliminary technical rationales for wadeable streams produced in 2012, specifically asking reviewers to comment on the state's proposed approach to deriving reach-specific criteria. Peer review comments considered Montana's approach sound and defensible.

[25] See Memorandum from Tudor T. Davies, Director Office of Science and Technology, Subject: Establishing Site-Specific Aquatic Life Criteria Equal to Natural Background, November 5, 1997.

[26] Scientific justification for MDEQ's approach can be found on pages 4-4 to 4-8 of the May 2013 document: Suplee, Michael W., V. Watson, A. Varghese, and Joshua Cleland. 2008. *Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers*. Helena, MT: MDEQ Water Quality Planning Bureau.

The EPA examined Montana's process for deriving reach-specific criteria and finds the criteria, reflecting natural background conditions, are scientifically defensible and protective of the aquatic life designated use. These provisions are approved.

DURATION AND FREQUENCY

For all NNC adopted by Montana for wadeable streams and segments of the Yellowstone River, Department Circular DEQ-12A defines the duration and frequency associated with the standard as: "The average concentration during a period when the standards apply may not exceed the standards more than once in any five-year period, on average." (Section 3.0, Endnote 4). This duration and frequency means that, for a given waterbody, the TN and TP concentrations must not exceed the applicable criterion concentration more than once in a 5-year period.

Montana's determined the once in 5-year recurrence frequency based on an analysis of a long-term dataset (1998-2009) from the Clark Fork River where NNC have been approved by the EPA since 2003. The state's analysis examined TN and TP data from sites along the Clark Fork River[27] that were meeting and exceeding the numeric chlorophyll criterion. Results of that analysis showed that: *"Sites that experience greater than about 25-30% exceedance of the nutrient standards will develop nuisance benthic algal growth, i.e., growth equal to or greater than 150 mg Chl a/m².* " The state used this information to inform their selection of the one in 5-year recurrence frequency since that frequency is similar to a 20% exceedance rate. Montana also noted that a once in 5-year recurrence frequency is more protective than the EPA's long-standing recommendation (i.e., once in three years).

Basis for Approval

The EPA determined that such a frequency of exceedances would still protect the designated use because it would allow water bodies enough time to recover from occasionally elevated levels of nitrogen and phosphorus concentrations. The EPA has concluded that the adopted duration and frequency provisions are consistent with 40 CFR § 131.11(a)(1) of EPA's water quality standards regulation. Accordingly, the EPA is approving these provisions.

ASSESSMENT METHODOLOGY

Montana's current assessment methodology for nutrients is based on the existing narrative standard. The EPA recognizes and supports the state's decision to apply the draft NNC as part of a weight-of-evidence approach to interpret the narrative when developing its 303(d) list. Now that the state has adopted NNC applicable to certain waters and waterbody types and the EPA has approved such standards as discussed above, the EPA fully expects Montana to revise and update its nutrient assessment methodology to be consistent with the newly adopted and EPA-approved NNC. These revisions should be completed prior to the 2016 Integrated Reporting cycle to ensure that nutrient-related attainment decisions reflect compliance with the newly adopted and EPA-approved numeric criteria values.[28]

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[27] See pages A8-A14. Suplee, M.W., and R. Sada de Suplee, 2011 Assessment Methodology for Determining Wadeable Stream Impairment Due to Excess Nitrogen and Phosphorus Levels. Helena, MT: Montana Dept. of Environmental Quality.

[28] For impairment decisions and total maximum daily loads (TMDLs), CWA § 303(d)(1)(A) requires that each State shall identify "those waters within its boundaries for which the effluent limitations required by section 301(b)(1)(A) and section 301(b)(1)(b) are not stringent enough to implement any water quality standard applicable to such waters" (emphasis added). Accordingly, listing decisions must consider the underlying designated use and criteria.

DOWNSTREAM USE PROTECTION

Protection of downstream waters is required by language included in Endnotes 2 in Department Circular DEQ-12A Section 3.0:

> (2) Within and among the geographic regions or watersheds listed, base numeric nutrient standards of the downstream reaches or other downstream waterbodies must continue to be maintained. Where possible, modeling methods will be utilized to determine the limitations required which provide for the attainment and maintenance of water quality standards of downstream waterbodies.

Basis for Approval

Montana's downstream provision provides a process that will serve to ensure that water quality standards are maintained both near and far-field. Montana's provision is consistent with both EPA's regulation at 40 CFR § 131.10(b) and the following EPA recommended language for developing a narrative downstream protection criterion:[29]

> "All waters shall maintain a level of water quality that is demonstrated by water quality modeling to provide for the attainment and maintenance of the water quality standards of downstream waters, including the waters of another state."

Since Montana is not adopting NNC for any downstream waterbodies such as lakes or reservoirs at this time, the EPA concludes the state's decision to adopt a narrative downstream provision is appropriate. In cases where a downstream water quality standard is not attained, the EPA's expectation is that Montana would evaluate the upstream waterbody(ies), based on the narrative downstream criterion, to determine impairment under CWA Section 303(d).

This provision is approved.

PERMITTING COMPONENTS (DEQ-12A SECTION 2.1)

Section 2.1 of DEQ-12A identifies the required reporting limits for calculating total nutrient concentrations for TN and TP. The EPA is not acting on the reporting requirements today because the EPA determined they are not water quality standards requiring Agency review and approval under CWA § 303(c).

VARIANCE AUTHORIZATION PROVISIONS

Section ARM 17.30.660(1) authorizes the general and individual variances for nutrients once the BER adopts the NNC.

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[29] Templates for Narrative Downstream Protection Criteria in State Water Quality Standards: http://water.epa.gov/scitech/swguidance/standards/narrative.cfm

Basis for Approval

The EPA has reviewed this provision and determined that it is consistent with the EPA's requirements. The EPA's water quality standards regulation (40 CFR § 131.13) provides that variance policies may be adopted at state discretion, and that such general policies are subject to review and approval by the EPA.[30,31] The EPA approves ARM 17.30.660(1).

GENERAL VARIANCES FOR PUBLIC AND PRIVATE DISCHARGERS

A variance is a "time-limited designated use and criterion that is targeted to a specific pollutant(s), source(s), and/or water body or waterbody segment(s) that reflects the highest attainable condition during the specified time period."[32] The EPA encourages states and authorized tribes to utilize WQS variances, where appropriate, as an important WQS tool that provides time to make progress towards attaining the underlying designated use and criteria. The EPA has offered its position and guidance relating to variances through Office of General Counsel legal decisions,[33] guidance, memoranda, and approval actions for many years.[34]

The EPA's position is that it could approve a variance for a specific discharger or group of dischargers where the state satisfies the requirements in 40 CFR Part 131 for removing a designated use.[35] As such, the state must demonstrate that it is not feasible for the discharger or group of dischargers to attain the WQBEL(s) derived from the applicable designated use and criteria during the term of the variance due

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[30] On September 4, 2013 the Agency proposed revisions to its WQS regulation that include new requirements addressing WQS variances. The comment period on the proposed rule closed on January 2, 2014.

[31] Guidance regarding State options is provided in Section 5.3 of the EPA Water Quality Standards Handbook (EPA-823-B-94-005, August 1994). http://water.epa.gov/scitech/swguidance/standards/handbook/index.cfm.

[32] Water Quality Standards Regulatory Clarifications, 78 Fed. Reg. 54517, 54531 (September 4, 2013).

[33] It has been EPA's position since 1977 that, where a state satisfies all of the requirements in 40 CFR Part 131 for removing designated uses (or subcategories of uses), EPA could also approve a state decision to limit the applicability of the use removal to only a single discharger and/or a single criterion via a variance for a limited time period, while continuing to apply the underlying use designation and criteria to the waterbody as a whole (i.e., the underlying use designation and criteria would apply to all other dischargers other than the one for which a variance has been granted). This position was set forth in a Decision of the EPA General Counsel (In Re Bethlehem Steel Corporation, No. 58, March 29, 1977). The General Counsel's decision reasoned that such a state decision can be approved by EPA as being consistent with the CWA and 40 CFR Part 131 because the state's action in limiting the applicability of an otherwise approvable use removal to a single discharger and a single criterion for a limited time period would be more stringent than if the state made the use removal applicable to the water body as a whole; and Section 510 of the CWA allows states to adopt standards more stringent than necessary to meet the CWA's requirements. See 58 Fed. Reg. 20802, 20921-22 (April 16, 1993).

[34] The EPA's memoranda discussing variances are available on the EPA's website at http://water.epa.gov/scitech/swguidance/standards/handbook/chapter05.cfm or http://water.epa.gov/scitech/swguidance/standards/library/index.cfm. http://water.epa.gov/scitech/swguidance/standards/upload/2008_08_04_standards_wqsvariance.pdf.

[35] EPA has explained a state or authorized tribe may streamline its variance process by granting one variance that applies to all these dischargers (i.e., a multiple discharger variance) where the state or authorized tribe can demonstrate that that the designated use and criterion is unattainable as it applies to multiple permittees because they are all experiencing challenges in meeting their WQBELs for the same pollutant for the same reason, regardless of whether or not they are located on the same water body, so long as the variance is consistent with the CWA and EPA's implementing regulations. *See* Water Quality Standards Regulatory Clarifications, 78 Fed. Reg. 54517, 54531-32 (September 4, 2013) and EPA's FAQs on multiple discharger variances available at: ahttp://water.epa.gov/scitech/swguidance/standards/upload/Discharger-specific-Variances-on-a-Broader-Scale-Developing-Credible-Rationales-for-Variances-that-Apply-to-Multiple-Dischargers-Frequently-Asked-Questions.pdf.

to at least one of the factors listed in 131.10(g).[36] Section 131.10(g) includes the following factors: (1) naturally occurring pollutant concentrations prevent the attainment of the use; (2) natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating state water conservation requirements to enable uses to be met; (3) human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; (4) dams, diversions, or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to resort the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; (5) physical conditions related to natural features of the water body such as lack of a proper substrate, cover, flow, depth, pools riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses; or (6) controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact.

The EPA reviewed Montana's basis[37,38] for determining that it is reasonable to grant multiple public and multiple private dischargers throughout the state with general variances of up to 20 years based on a demonstration that it is infeasible to meet water quality-based effluent limits based on the NNC (and by extension infeasible to attain the designated use for that limited time) "end-of-pipe" because meeting such limits would cause substantial and widespread economic and social impacts (see 40 CFR § 131.10(g)(6)) on a statewide basis. This analysis is the focus of the EPA review discussed below.

Economic Analysis for POTWs

For the economic analysis of publicly-owned wastewater treatment plants (POTWs) within the state, Montana referred to the EPA's 1995 economic guidance to evaluate substantial and widespread economic impacts.[39] Montana identified the 107 actively discharging POTWs within the state, and completed the analysis of economic impacts for 24 of the 107 dischargers across Montana. The state considered this subset to be a representative subsample of the economic and technological conditions for the entire population of dischargers. The state's analysis examined effluent data and financial information for all 12 POTWs that discharge more than 1 million gallons per day (MGD); four of the 12 facilities that discharge less than 1 MGD; and eight of the 83 lagoon systems.[40] Appendix A of the state's economic demonstration[41] includes the detailed cost analyses for each plant.

Using EPA's guidance as a starting point for its analysis, the state applied three "tests" to determine if the cost to meet the NNC would cause substantial economic and social impacts for the community: 1)

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[36] Id.

[37] Blend, Jeff; Suplee, Michael. 2011. Demonstration of Substantial and Widespread Economic Impacts to Montana That Would Result if Base Numeric Nutrient Standards had to be Met in 2011/2012. Helena, MT: Montana Dept. of Environmental Quality.

[38] Blend, Jeff; Suplee, Michael. 2012. Demonstration of Substantial and Widespread Economic Impacts to Montana That Would Result if Base Numeric Nutrient Standards had to be Met by Entities in the Private Sector in 2011/2012. Helena, MT: Montana Dept. of Environmental Quality.

[39] U.S. Environmental Protection. 1995. Interim Economic Guidance Workbook. Washington, DC: U.S. Environmental Protection. Report EPA-823-B-95-002.

[40] Lagoons refer as "facultative waste stabilization ponds" (USEPA 2002. Wastewater Technology Fact Sheet) http://water.epa.gov/scitech/wastetech/upload/2002_10_15_mtb_faclagon.pdf. In Montana, this includes aerated and non-aerated facultative waste stabilization ponds.

[41] Blend, Jeff; Suplee, Michael. 2011. Demonstration of Substantial and Widespread Economic Impacts to Montana That Would Result if Base Numeric Nutrient Standards had to be Met in 2011/2012. Helena, MT: Montana Dept. of Environmental Quality.

Municipal Preliminary Screener (MPS) test; 2) secondary score; and 3) the widespread test. The MPS and secondary score constitute an evaluation of whether the population that is expected to bear the cost will incur "substantial" economic impacts due to the implementation of the pollution control costs. The MPS "screener" test establishes whether a community can clearly pay for the project without incurring any substantial impacts. If a community did not pass the "screener" test, the state used the secondary test to incorporate a characterization of the community's current financial and economic well-being. Together these two tests can demonstrate whether or not a community has "substantial" economic impacts. In order to derive the MPS, the state needed to estimate the compliance costs to meet the NNC. The state first described the current treatment technology and nutrient effluent concentrations for each of the 24 facilities. Next, the state identified additional treatment technology needed to achieve the NNC after examining a variety of different treatment processes. Effluent concentrations associated with enhanced biological nutrient removal technology are the best currently being achieved anywhere in the U.S. at full-scale wastewater treatment facilities. According to Montana's analysis, effluent concentrations using enhanced biological nutrient removal (EBNR) technology ranged from 3000 - 4000 µg/L TN and 50 – 70 µ/L TP.[42,43] If those concentrations were end-of-pipe (no mixing zone) limits, they would not meet the nitrogen criteria (see Table 12A-1 on page 5) and would not necessarily meet the phosphorus criteria (see Table 12A-1 on page 5). Therefore, Montana did not use EBNR as the basis for determining compliance costs.

Instead, the state considered reverse osmosis (RO) to be the most advanced treatment method with the greatest likelihood of achieving Montana's NNC, which includes nitrogen and phosphorus criteria. Wastewater engineering reports document that RO can achieve concentrations of less than 2000 µg/L TN and may meet concentrations of 1000 µg/L TN (depending on a number of factors) and less than 0.010 µg/L TP.[44] Based on this information, Montana determined that RO was the only available technology for facilities to implement in order to meet WQBELs derived to meet the state's dual NNC.

Montana calculated the cost of compliance based on RO using data available from the Interim Water Environment Research Foundation (WERF) study.[45] The WERF study identifies different treatment levels and their associated capital and operations costs. To calculate the total annual pollution control costs for each facility, current effluent concentrations were compared to the costs of treating 50% and 100%, of the plant's effluent using RO. Both scenarios were run because meeting the NNC may require reducing influent TN concentrations by using a two-pass RO system (i.e., treating 100%),[46] Montana next calculated the total annual pollution control cost per household, including the cost of the project and existing pollution control costs.

Montana also completed an overall sensitivity analysis to derive the MPS value. In the sensitivity analysis, the state examined the effect of different discount rates (i.e., using 7% instead of 5%); labor costs (labor was excluded from the WERF cost estimates); and treating 100% of the effluent using RO.

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[42] Hartman, Pamela, and J. Cleland. 2007. Wastewater Treatment Performance and Cost Data to Support and Affordability Analysis for Water Quality Standards.

[43] Presentation by Dave Clark, HDR Consulting to MDEQ Nutrient Workgroup. Achievable Technology for Municipal Wastewater Systems. 09/17/2009.

[44] Falk, M. W., J. B. Neethling, and D. J. Reardon. 2012. Striking the Balance Between Nutrient Removal in Wastewater Treatment and Sustainability. IWA Publishing. U.S. Environmental Protection. 1995. Interim Economic Guidance Workbook. Washington, DC: U.S. Environmental Protection. Report EPA-823-B-95-002.

[45] Id.

[46] See page 18 of MDEQ's economic demonstration for more detail. Blend, Jeff; Suplee, Michael. 2011. Demonstration of Substantial and Widespread Economic Impacts to Montana That Would Result if Base Numeric Nutrient Standards had to be Met in 2011/2012. Helena, MT: Montana Dept. of Environmental Quality.

The EPA found the sensitivity analysis to represent the range of circumstances that could be encountered.

The MPS value represents the cost of annualized proposed pollution controls per household. The EPA's economic guidance states that MPS values greater than 2% indicate that the project may place an unreasonable financial burden on many of the households within the community. If the MPS suggests substantial impacts may be possible (i.e., >1%) or more likely (i.e., >2 %), the EPA guidance recommends performing the secondary test to confirm substantial economic and social impact. Secondary scores describe the socioeconomic health of the community in more detail and demonstrate the community's ability to obtain financing for wastewater improvements. In its approach, Montana chose to use its own updated list of indicators to determine the secondary score.[47, 48] Using the data for its updated list of indicators, Montana calculated the secondary scores for the 24 communities. Montana then used secondary scores in combination with the MPS results and the sensitivity analysis to determine whether implementing the pollution control costs would cause "substantial" economic impacts to the community. The state asserted that based on the results of the secondary scores and the MPS values, all 107 communities showed substantial economic impacts.

Lastly, the state evaluated statewide economic impacts of meeting the NNC through application of the "widespread" test. The "widespread" test examines the impacts to the larger affected community, recognizing that the financial impacts associated with the discharger treating to the NNC could cause "far reaching and serious impacts to the community".[49] Montana described the potential cumulative adverse economic impacts that could occur including: a) the expense associated with replacing lagoons with mechanical treatment plants for the majority of communities; b) the state's current ranking as 41st in the nation in per capita income; c) impacts to struggling small towns lacking diversified economies; d) challenges with finding qualified wastewater treatment plant operators; and e) impacts to other community infrastructure needs. In addition, the state described the environmental consequences associated with building RO treatment systems (e.g., brine disposal, increased greenhouse gas emissions). The state concluded that Montana would experience widespread economic impacts if communities were required to implement the necessary pollution control costs without the added flexibility of staging attainment by dischargers over up to 20 years.

Economic Analysis for Private Facilities

Montana's showing of economic impacts to private-sector dischargers was modeled on the EPA's economic guidance and is similar to the public sector analysis.[50] First, the state identified 51 private dischargers from a variety of sectors (e.g., metal mining; coal mining; oil and gas development; oil and gas refineries; etc.) that may be affected by adoption of NNC. NPDES water discharge permits, monitoring data, and the statement of basis for these dischargers were examined to evaluate current treatment levels for each facility. The state's analysis assumed that the costs of compliance would be incurred by the businesses and not transferred to Montana households. Similar to the public sector analysis, Montana projected the costs of achieving the NNC based on the following assumptions: a) treatment of 50% and 100% of the facility's effluent using RO would be required; b) discount rates

[47] See Appendix C of Blend and Suplee (2011). Demonstration of Substantial and Widespread Economic Impacts to Montana That Would Result if Base Numeric Nutrient Standards had to be Met in 2011/2012.
[48] Memo submitted to the EPA from Jeff Blend, MDEQ, on 12/09/2014. Changes to the Individual Variance Made by the NCAAG (Nutrient Criteria Affordability Advisory Group).
[49] U.S. Environmental Protection. 1995. Interim Economic Guidance Workbook. Washington, DC: U.S. Environmental Protection. Report EPA-823-B-95-002.
[50] Id.

would be 5% or 7%; and c) labor costs may vary from 15% to 48%. The state's private sector economic analysis also included a sensitivity analysis. Where possible, plant level information was used to determine current and projected costs of meeting the NNC.

The EPA guidance does not identify a specific economic hardship threshold (i.e., 2% MPS for the public sector) that can be applied to determine whether private-sector economic impacts are substantial. Therefore, the state examined economic impacts to individual facilities and also at a statewide scale. Montana presented financial analyses completed for several of the larger businesses as a signal of the economic impacts that could also occur to smaller businesses if facilities were required to treat to the NNC.[51] This review suggested larger plants may experience impacts such as a loss in revenues; layoffs; or scaling back production. In some cases, plants may have to shut down, affecting the financial status of the broader community.

Montana also evaluated sector-level estimates associated with meeting NNC. Montana's analysis estimated the amount of total annual revenue that businesses would spend to meet the NNC. Additionally, Montana's private-sector economic demonstration includes several case studies of individual businesses working to implement rigorous nutrient controls. These case studies offer insights into the implications of meeting the adopted NNC for private businesses-- documenting the technological and financial barriers that may be encountered.

The state's economic analysis concludes with the "widespread" test which discusses the projected statewide implications to private businesses including: a) recent impacts from the recession; b) companies deciding not to locate in Montana to avoid costs associated with meeting the NNC without the possibility of staging attainment by dischargers over up to 20 years; and c) impacts of business closures including loss of higher wage paying jobs on the local and statewide economy. As noted above, based on the EPA's review of the available treatment technologies for total nitrogen, there is not an existing technology currently available that would reliably meet Montana's dual NNC, especially stringent nitrogen criteria (1300 µg/L TN (warm water); 300 µg/L TN (cold water)). This presents similar difficulties for some industrial dischargers who, without available treatment, could be in the position of halting operations entirely in the state. Closure of these facilities could result in significant job losses in the Montana.

Basis for Approval

In the EPA's review of Montana's economic demonstration, the EPA first reviewed the list of dischargers included in the state's analysis. The EPA notes that an estimated thirty dischargers included in the state's economic analysis discharge into non-wadeable rivers for which numeric nutrient criteria have not yet been derived or adopted. Based on ARM 17.30.660(1), the EPA understands that these facilities will continue to be subject to Montana's existing narrative criterion instead of the NNC and therefore the EPA's approval of general variances today does not include these dischargers. Additionally, the state's economic analysis included dischargers currently covered by a general permit for domestic sewage lagoons. The EPA's approval of general variances today does not apply to these lagoons because they are not yet subject to the NNC.

The EPA evaluated whether including these facilities in the state's economic analysis affected the final

[51] See Table 5; Pages 8-10. Blend, Jeff; Suplee, Michael. 2012. Demonstration of Substantial and Widespread Economic Impacts to Montana That Would Result if Base Numeric Nutrient Standards had to be Met by Entities in the Private Sector in 2011/2012. Helena, MT: Montana Dept. of Environmental Quality.

outcome. From the EPA review, it appears that facilities discharging into non-wadeable rivers without established NNC are similar in composition to the subset of facilities with established NNC that were used in the state's economic analysis. For example, for the public sector, facilities on non-wadeable rivers ranged from larger more affluent communities with mechanical plants (i.e., Billings, Livingston) to small towns with lagoon systems. For the private sector, facilities discharging into non-wadeable rivers includes a mix of larger, multi-national private dischargers with greater financial capabilities to make capital improvements (i.e., Exxon, Conoco) to facilities that may not be currently discharging. By including both highly profitable and potentially nondischarging facilities in their economic analysis, it is possible the state's economic analysis may have underestimated the economic impacts associated with meeting the NNC. The EPA concludes that including these facilities from the economic analysis does not undermine the final conclusion in the state's economic analysis that meeting the NNC would result in substantial and widespread economic and social impacts for all dischargers subject to the NNC.

For the public sector economic demonstration, the EPA reviewed the list of public dischargers included in the state's analysis. The state's economic analysis focused on those communities with the highest likelihood of being able to afford to meet the NNC. By demonstrating that the largest, and generally most affluent, communities with already-sophisticated systems in place (e.g., biological nutrient removal) and/or that large populations where additional costs could be dispersed (i.e., economies of scale) would face economic hardship, Montana demonstrated that the remaining dischargers (primarily lagoons) would also face economic hardship if required to meet the NNC. These dischargers would have to absorb much higher costs of additional technology (e.g., RO plant) with less population to absorb the costs. Assuming these remaining dischargers have at most the same median household income as the other communities, the net effect is a higher MPS value. Since the subset of communities examined in Montana's analysis exceeded the 2% threshold, Montana concluded the remaining dischargers would also have MPS values above the 2% threshold. The EPA finds this assumption reasonable.

The EPA also evaluated the state's assumption that facilities would need to meet the NNC at the end-of-pipe. There were several factors relevant to determining whether a facility would need to meet the NNC at the end of end-of-pipe including: whether the facility discharges into a waterbody on the state's 303(d) list as impaired for nutrients; whether any mixing zone is available; and whether the facility discharges into an intermittent waterbody or waterbody where the 14Q5 would likely be zero. The EPA concludes that the state's assumption that criteria would need to be met at the end-of-pipe is reasonable.

Next, the EPA examined Montana's assumption that RO would be required to meet the NNC by reviewing the available literature on treatment technologies; identifying the effluent concentrations that can reliably be achieved; and consulting with wastewater experts both within the EPA as well as outside of the Agency. The EPA recognizes that treatment technologies other than RO may meet some of Montana's numeric TP criteria if it was the only criteria that Montana had adopted and dischargers were treating only for total phosphorus.[52, 53,54] For example, case studies from Colorado (Cherry Creek Reservoir Control Regulation), Utah (Snyderville Water Reclamation Facility)[55] and Montana

[52] Water Environment Research Federation. 2010. Nutrient Management: Regulatory Approaches to Protect Water Quality. Volume 1 – Review of Existing Practices.
[53] EPA. 2009. Nutrient Control Design Manual. State of Technology Review Report. EPA/600/R-09/012.
[54] EPA. 2010. Nutrient Control Design Manual. EPA/600/R-10/100.
[55] Pers. Com. February 9, 2015.

(Kalispell)[56] demonstrate that, while expensive, dischargers can use chemical addition and/or microfiltration to consistently achieve total phosphorus concentrations of 0.050 µg/L. However, chemical addition or microfiltration cannot achieve the nitrogen criteria component of Montana's NNC. Montana's approach to addressing nutrient pollution is based on the need for managing both total nitrogen and total phosphorus in order to manage the full nutrient pollution problem, which the EPA supports.[57] In the scientific justification for adopting an NNC that necessarily includes both TN and TP criteria, Montana states:

> The Department is recommending both TN and TP criteria for stream protection. Phosphorus (P) control is sometimes promoted as the only approach needed to limit eutrophication, this being based largely on the more economical removal of P from wastewater and the assumption that P can be made to become limiting in the waterbody. But data pertaining to streams and rivers indicate that it would be unwise to adopt only P criteria. Mixed assemblages of benthic algae are very often limited by nitrogen or nitrogen and phosphorus (co-limitation) in the region's flowing waters. A P-only approach, in order to work, would require that P standards be set to the very low background levels observed in our western region's reference sites (e.g., 10 µg TP/L). If the P standard were not set to natural background, and no controls on N were undertaken, then the commonly occurring N limitation or N and P co-limitation would lead to algal growth stimulation nonetheless. Worse yet, in the long term, a P-only strategy would result in highly skewed (elevated) N:P ratios accompanying the low P levels. These management-induced conditions might control green algae biomass but may lead to nuisance blooms of the diatom algae *Didymosphenia geminata,* which has in recent years formed nuisance blooms in rivers and streams in Montana and world-wide. (Executive Summary). [58]

Determining the cost of compliance with Montana's NNC requires identification of treatment technologies that will meet both the TN and TP criteria. Treatment options that meet one criteria but not the other would not ensure protection of the aquatic life designated use.

Based on the EPA's review of the available treatment technologies for total nitrogen, there is not an existing technology currently available that would reliably meet Montana's stringent NNC which includes both nitrogen and phosphorus criteria. RO is the only treatment option that has the potential to remove the total nitrogen component of the NNC to concentrations of approximately 1000 µg/L TN. Case studies examining RO performance indicate that the reliability and consistency of meeting a TN concentration of 1000 µg/L TN are highly variable and depend on the TN concentrations of the influent, total dissolved solids concentrations, temperature and pH. Removal of refractory dissolved organic nitrogen has also been shown to be a challenge when striving to meet such a low concentration.[59] Therefore, using a single-pass RO system to meet a 1300 µg/L TN monthly summer average criterion for warm water streams is considered unreliable. Because there are no existing treatment technologies that can reliably achieve the nitrogen criteria of the NNC for wadeable streams, the EPA supports Montana's view that achieving WQBELs based on the NNC and thus attaining the NNC (and the designated use) is infeasible until treatment methods improve or ambient levels of nutrients in the streams decrease to the point that effluent discharge concentrations do not need to be equal to the NNC,

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[56] EPA. 2008. Municipal Nutrient Removal Technologies Reference Document. Volume II – Appendices. EPA-832-R-08-006. http://water.epa.gov/scitech/wastetech/upload/2008_10_06_mtb_mnrt-volume2.pdf

[57] EPA. 2012. http://www2.epa.gov/sites/production/files/documents/nandpfactsheet.pdf

[58] Suplee, M.W1., and V. Watson2, 2013. Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers—Update 1. Helena, MT: Montana Dept. of Environmental Quality.

[59] Falk, M. W., J. B. Neethling, and D. J. Reardon. 2012. Striking the Balance Between Nutrient Removal in Wastewater Treatment and Sustainability. IWA Publishing.

otherwise substantial and widespread economic and social impacts will occur. Optimization studies, including efficiencies that could be obtained through trading with nonpoint sources, may illuminate such opportunities.

For the public sector dischargers, the EPA concludes that based on the above, requiring public sector dischargers to meet WQBELs based on Montana's adopted NNC would result in substantial and widespread economic and social impacts for all POTWs covered by a general variance. The state's analysis meets the requirements of 40 CFR § 131.10(g) and justifies a variance of up to 20 years for POTWs.

For the private sector economic demonstration, the EPA concludes that the state's submission meets the requirements of 40 CFR § 131.10(g) and justifies a variance of up to 20 years by demonstrating that requiring private sector facilities to meet WQBELs during the period of the variance based on Montana's adopted NNC would result in substantial and widespread economic and social impact. Given that there is no feasible technology to reliably meet the TN criteria, a broad spectrum of facilities and industries would be forced to substantially alter or halt operations. The resulting cascade of impacts would be felt throughout all communities statewide. Montana's variance provisions provide needed time to determine how to achieve compliance with necessary effluent limits based on the NNC, and ensure that progress toward that goal will proceed in a timely manner.

If at the time of permitting, Montana determines that, based on site-specific facts and details (e.g., dilution, alternatives to discharge, installing less expensive treatment technology), an individual discharger can meet the NNC-based limits, then the discharge permit would include such limits. Where necessary and appropriate, a compliance schedule may be included in the permit. This approach is consistent with Montana's regulatory language that variances may be provided for up to 20 years, or for a shorter duration, should the state determine that is appropriate. Another option would be for the discharger to apply for an individual variance based on a site-specific demonstration that the discharger cannot afford to meet such NNC-based limits.

General Variance Considerations and Water Quality Protections that Apply While the Variance is in Effect

ARM 17.30.660(2) establishes that any discharger covered by a general variance must meet the requirements described in DEQ-12B. This provision documents that "the decision to grant the general variance must be reflected in the permit that is made available for public comment." Section 2.0 of DEQ-12B provides additional detail regarding implementation, stating that general variance coverage will be implemented through the permitting process and that permits will include the period of the variance and the interim requirements for each discharger covered under a general variance.

Section 2.0 of DEQ-12B provides additional detail regarding general variances including: a) interim end-of-pipe treatment requirements which expire on July 1, 2017 ; b) the maximum 20 year duration of a variance; c) permitting details associated with the variance; and d) review requirements of the justification for the variance and future end-of-pipe treatment requirements to make progress towards the NNC.

This section goes on further to define the end-of-pipe interim treatment requirements at Table 12B-1 (see figure) for three categories of dischargers: 1) facilities with discharge volumes greater than 1 MGD; 2) dischargers with volumes less than 1 MGD; and 3) lagoons. The interim treatment requirements shall

be applied as a monthly average as defined in Sections 1.1 and 2.1 of DEQ-12B.

Section 2.0 of DEQ-12B requires that, after June 1st, 2016, and triennially thereafter, Montana review the economic justification for the general variances as well as the cost and effluent concentrations associated with available treatment technologies. Findings from this review will determine the next set of interim limits that apply under the general variances after 2017. The state will solicit public comment on its draft findings and will initiate rulemaking if there is a need to revise the interim limits and/or continue the general variance without modifications. Results of the rulemaking will be submitted to the EPA for review and approval.

Table 12B-1. General variance end-of-pipe treatment requirements.

	Monthly Average	
Discharger Category	**Total P (µg/L)**	**Total N (µg/L)**
> 1.0 million gallons per day	1,000	10,000
< 1.0 million gallons per day	2,000	15,000
Lagoons not designed to actively remove nutrients	Maintain current performance	Maintain current performance

Section 2.0 clarifies that permit limits implementing the end-of-pipe treatment requirements and NNC will be expressed in loads. The rule language also indicates that compliance schedules can be incorporated into the permit to allow time to meet the interim treatment requirements.

Section 2.1 of DEQ-12B requires permittees covered by a general variance to complete an optimization study within two years of receiving the variance. The optimization study must explore alternatives to reduce nutrient loading such as nutrient trading, facility optimization without substantial investment in new infrastructure, reuse, recharge, and land application.

Basis for Approval

The EPA finds Montana's general variances for public and private dischargers to be reasonable and consistent with CWA requirements. As discussed above, the state's economic analyses demonstrate that the facilities subject to WQBELs based on the NNC need a variance because meeting WQBELs based on the NNC during the term of the variance would cause substantial and widespread economic and social impact, consistent with 40 CFR § 131.10(g)(6). In addition, the maximum 20-year time frame of the general variances combined with the requirement for the state to review every three years both the justification for the general variances and to review, obtain public input and adopt new interim treatment requirements provides assurance that these dischargers will be expected to achieve specific numeric interim treatment requirements throughout the variances in order to make progress towards achieving

the target effluent limitations based on the underlying NNC. Montana documented the rationale for the maximum 20-year variance limit in DEQ-12B (General Introduction) stating:

> Because many of the base numeric nutrient standards are stringent and may be difficult for MPDES permit holders to meet in the short term, Montana's Legislature adopted laws (e.g. §75-5-313, MCA) allowing for the achievement of the standards over time via the variance procedures found here in Circular DEQ-12B. This approach should allow time for nitrogen and phosphorus removal technologies to improve and become less costly, and to allow time for nonpoint sources of nitrogen and phosphorus pollution to be better addressed." (underline added)

Montana's approach facilitates long-term facility planning by defining the NNC as the highest attainable condition (HAC) for its waters and establishing a maximum of 20 years to achieve that HAC. Given the current lack of existing treatment technologies that can reliably achieve effluent limits based on the NNC, specifically the stringent nitrogen criteria, discussed above, the variance process provides time for dischargers to identify and implement the most cost effective method for making progress towards meeting the NNC while also ensuring that the NNC remains the goal. Montana's nutrient rules establish the NNC as the long-term HAC with interim milestones (i.e., interim treatment requirements) required for dischargers to meet in the near term:

> "Variances from the standards may be granted for up to 20 years. Thus, 75-5-313,MCA, allows for the base numeric nutrient standards to be met in a staged manner over time, as alternative effluent management methods are considered, nutrient removal technologies becomes more cost-effective and efficient, and nonpoint sources of nutrients are addressed." (Statement of Reasonable Necessity ARM 17.30.660)

To ensure that dischargers are making meaningful progress toward the HAC throughout the duration of the variance, Montana's approach incorporates short-term interim milestones, adopted on a triennial basis. The first set of milestones are the end-of-pipe treatment requirements established by the MT statute and re-iterated in Table 12B-1 that expire on July 1, 2017, after which Montana will go through a public rulemaking process to establish the next set of interim treatment requirements. The procedure established in Montana's regulations provides accountability that dischargers will make progress towards meeting the NNC by the end of the general variance provided that the triennial review process is implemented appropriately and effectively. This process should ensure that the water quality protection requirements imposed by the variances keep pace with what is feasible to achieve. This approach also affords the public an opportunity to review and comment on the proposed milestones. Montana will submit a new WQS rule package including the interim milestones applicable for the next three-year period to the EPA for review and approval.

Based on prior conversations with the state, the EPA understands that Montana will include limits based on the NNC in the permit fact sheet. The EPA supports and encourages this practice so that dischargers are fully aware of what will be expected of them at the end of the variance period.

Montana's approach is comprehensive and provides time for dischargers to incrementally work to achieve stringent WQBELs based on the protective NNC. The EPA supports Montana's decision to establish interim treatment requirements and to require a review of the interim treatment requirements and underlying variance justifications on a triennial basis. Not only will Montana's rules as a whole ensure that dischargers are making progress towards achieving the HAC in a process that includes public

input and oversight by the EPA, but this approach also provides incentives to maximize optimization, develop innovative treatment technologies, and look toward nonpoint source reductions, especially for nitrogen, to facilitate that the NNC will be achieved in 20 years.

The initial set of end-of-pipe treatment requirements included in the rulemaking expire on June 1, 2017. This expiration is appropriate given that the state statute authorizing the general variances, MCA 75-5-313, sets forth that particular set of treatment requirements for only that time frame. As the expiration date approaches for the initial set of treatment requirements, the EPA fully expects Montana to adopt the next set of general variance milestones that will ensure dischargers continue to reduce nutrient loads and will ensure Montana is on a pathway to protect aquatic life designated use and attain the NNC. Such interim requirements should, themselves, reflect the best that dischargers can achieve in that time period and be based on 1) information collected during the optimization studies completed during the first phase of the general variances; and 2) additional analyses about what is affordable for facilities under the substantial and widespread economic and social test.

Montana's nutrient rules (specifically section 2.1 of DEQ-12B) define the expectations for the optimization studies.[60] Optimization is a tool that, when effectively implemented and sustained, can achieve remarkable nutrient reductions at much lower costs and within much shorter timeframes (~3 years).[61] Optimization case studies demonstrate that plant performance can be improved to achieve TN and TP concentrations below 10,000 µg/L and 1000 µg/L respectively.[62] Optimization work recently completed at several Montana wastewater treatment plants (e.g., Manhattan, Chinook, Conrad) demonstrate improved plant performance with effluent total nitrogen concentrations reduced by as much as 50%.[63,64] By coupling the interim treatment requirements with an optimization requirement, Montana's approach facilitates shorter-term nutrient reductions from dischargers that will inform future interim treatment requirements.

Section 2.0 includes rule language that a compliance schedule may be incorporated into a permit to allow time to meet the interim treatment requirements. Such schedules are appropriate where compliance with the WQBEL is feasible but time is needed. For example, facilities may need time to secure funding[65], install treatment technology and implement the steps necessary to meet the WQBEL. The duration of a compliance schedule is determined based on discharger-specific information and must ensure compliance as soon as possible and be consistent with EPA's federal regulations at 40 CFR § 122.47. The state's decision to authorize permit compliance schedules for purposes of implementing such limits is fully consistent with the state's more general authority[66] to establish permit compliance schedules for <u>any</u> water quality-based effluent limit.

Based on our review, the EPA concludes that ARM Section 17.30.660(2),Sections 2.0 and Section 2.1 of DEQ-12B implementing general variances for both public and private dischargers are consistent with the EPA's regulations and are approved.

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[60] Section 2.1 of Circular DEQ-12B requires permittees covered under a general variance to complete an optimization study.
[61] Wastewater Nitrogen & Phosphorus Removal without Plant Upgrades: Optimizing the Operation of Existing Facilities. The Water Planet Company. 10 December 2013 Presentation to EPA Region 8.
[62] <u>Id.</u>
[63] Paul LaVigne, Montana Department of Environmental Quality, personal communication, March 24, 2014.
[64] Grant Weaver. The Water Planet Company. http://www.cleanwaterops.com/case~studies.
[65] Financing through bonds may be necessary to fund and construct expensive capital improvements and qualified plant operators may need to be trained or hired.
[66] ARM 17.30.1350 contains Montana's compliance schedule authorizing provision.

Existing Use Protection and NonPoint Source Controls for the General Variances

The EPA's water quality standards regulation (40 CFR § 131.10(h)) states that:

> "States may not remove designated uses if:
> (1) They are existing uses, as defined in § 131.3, unless a use requiring more stringent criteria is added; or
> (2) Such uses will be attained by implementing effluent limits required under sections 301(b) and 306 of the Act and by implementing cost-effective and reasonable best management practices for nonpoint source control.

Existing uses are those uses actually attained in the waterbody on or after November 28, 1975, whether or not they are included in the water quality standards. Federal regulations preclude removing designated uses if they are existing uses. A variance is a time-limited designated use and criterion for a specified pollutant(s), permittee(s), and/or water body or waterbody segment(s) that reflects the highest attainable condition during the specified time period. A variance provides a mechanism to make incremental progress toward the ultimate water quality objectives for the water body.

When adopting a variance, states and authorized tribes retain the underlying designated use and criterion in their standards to apply to all other permittees not addressed in the WQS variance, to identify threatened and impaired waters under CWA Section 303(d), and to establish a Total Maximum Daily Load (TMDL). The underlying designated use and associated criteria reflect the ultimate water quality objectives for a water body. In contrast, a variance is time-limited, and reflects the highest attainable condition during a specified time period. Designated uses and existing uses represent ultimate goals independent of time, whereas the highest attainable condition during a variance represents a time-limited proximate goal with the purpose of providing a mechanism toward achieving the ultimate designated use and thus protecting the existing use. Because the underlying designated use and associated criteria remain in place for the long-term, existing uses that are protected by the underlying designated use and associated criteria are not removed when a state adopts a time-limited variance.

For the nutrient rules that the EPA is acting on today, it is clear that Montana's implementation of nutrient variances (whether general or individual) will *improve* water quality, and place many impaired Montana waters on a pathway toward full attainment. Such variances recognize the reality that nutrient loadings from existing point sources need to be reduced, and that time is needed to accomplish such reductions. Rather than removing designated uses, the EPA believes such variances are essential to achieving protection of designated uses (and attainment of base numeric criteria) by a date certain.

Unlike an action to permanently remove a designated use, Montana's general variances retain the designated use as a long-term goal. The variances are authorized for no more than 20 years, and EPA understands the state will include limits based on the NNC in the permit fact sheet. Doing so ensures that permittees remain aware of their long-term compliance goals, and demonstrates a commitment to pursue achieving the WQBELs, the underlying designated use and the NNC within a period not to exceed 20 years.

It is clear from Montana's response to public comments that the state recognizes its obligation to protect existing uses, and that variances are not authorized for new or increased dischargers if existing use(s) would be impacted. For example, consider a water body where water quality conditions for all pollutants (including nutrients) support designated uses (i.e., the designated use is an existing use). In this scenario, a new/expanded discharge that would cause or contribute to a water quality standards exceedance would

not protect an existing use and fail to comply with MCA 75-5-303(1). Thus, the EPA interprets MCA 75-5-303(1), and Montana's response to comment, as acknowledging that variances are not authorized in the circumstances described therein, and that permits for such new/expanded discharges would need to include effluent quality limitations that protect designated and existing uses *on the date such discharges are initiated*. Any such permits would also have to comply with Montana nondegradation requirements.

Regarding 40 CFR § 131.10(h)(2), Montana evaluated cost-effective and reasonable best management practices for nonpoint sources under the control of a discharger. This is consistent with §131.10(h) because Montana's general variances and individual variances provision clearly only allow variances that are discharger(s) specific versus waterbody wide. Given the scope of Montana's provisions, the EPA believes it is reasonable for the state to evaluate only those best management practices for nonpoint source control that are within the control of a discharger.[67,68,69] In the scenario where there are no nonpoint sources under the control of the discharger (which the EPA believes is often the case) then the justification for the variance need not consider what can be achieved with implementation of cost-effective and reasonable best management practices for nonpoint source control.

In developing its general variance approach, Montana considered whether land application would be a viable nonpoint source control by various dischargers. Montana also discussed water rights issues related to land application opportunities with its rulemaking workgroup in March 2010. Workgroup discussion notes document the challenges noted with land application, specifically that land application requires access to available land with reliable landowner permission; piping to transport waste to the land application area; retention zones for periods when waste cannot be land applied; and funding. Because of this host of issues, Montana determined that land application was not be a viable option for many communities as a cost-effective BMP. Land application is one of the alternatives that, per DEQ-12B, dischargers should consider as part of the facility optimization study required for all facilities. Therefore, Montana considered cost effective and reasonable BMPS for non-point sources within the control of the discharger.

It is clear from Montana's evaluation of land application options that in the typical case where waters are now impaired, implementing cost effective and reasonable BMPs for nonpoint source control alone will not attain designated uses. It is most likely that a reduction in TP and TN load from a combination of point sources and nonpoint sources will ultimately be necessary to achieve the NNC and attain designated uses in wadeable streams. Rather than removing the underlying designated use, Montana's adoption of a variance provides time, up to 20 years in this case, to attain the underlying designated use. During this interim period, Montana is committed to a process of evaluating both point source control technology and nonpoint source reductions to identify the highest attainable condition at regular intervals. The EPA fully anticipates that this process will include further examination of cost effective and reasonable BMPs for nonpoint source control. As an example, Montana has encouraged dischargers

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[67] EPA. 2011. EPA Technical Support Document for EPA's Action on the State of Oregon's New and Revised Human Health Water Quality Criteria for Toxics and Associated Implementation Provisions Submitted July 12 and 21, 2011. October 17,2011.

[68] By contrast, for variances that temporarily relax requirements for all sources in the watershed (waterbody variances), the EPA interprets the provision as requiring an assessment of all contributing nonpoint sources.

[69] 40 CFR 132, Appendix F, Procedure 2 A.3. "A WQS variance shall not be granted if standards will be attained by implementing effluent limits required under sections 301(b) and 306 of the Clean Water Act (CWA) and by the permittee implementing cost-effective and reasonable best management practices for nonpoint source control."

to evaluate nutrient trading opportunities with nonpoint source partners. Montana recently released a comprehensive report that examined the viability of nutrient trading within the state.[70]

Based on this information, the EPA is approving Montana's nutrient rules as consistent with 131.10(h).

INDIVIDUAL VARIANCES

Section 3.0

Section 3.0 of DEQ Circular 12B contains introductory information and discusses how Section 3.0 is organized. This section establishes that the final permit limit for individual variances implementing the end-of-pipe-treatment requirements and NNC will be expressed as a load. Section 3.0 is approved.

Eligibility Criteria for Individual Variances

Sections 3, 5 and 6 of ARM 17.30.660 and Section 3.1 of DEQ-12B describe the considerations for individual variances and application process. The ARM language reads as follows:

> (3) An application for an individual variance must adequately demonstrate that there are no reasonable alternatives that eliminate the need for a variance and that attainment of the base numeric nutrient standards is precluded due to economic impacts or limits of technology, or both. If the demonstration relies upon economic impacts, the department shall consider any guidance developed by the department and the nutrient work group, as provided in 75-5-313(2), MCA.
>
> (5) The department shall review each application for an individual variance to determine whether a reasonable alternative, such as trading, a permit compliance schedule, a general variance, reuse, recharge, or land application would eliminate the need for an individual variance. If the department makes a preliminary finding that a reasonable alternative to approving an individual variance is available, the department shall consult with the applicant prior to making a final decision to approve or deny the individual variance.
>
> (6) If, after consultation with the applicant, the department determines that no reasonable alternative to an individual variance exists, the department shall determine whether the information provided by the applicant pursuant to (3) adequately demonstrates that attaining the base numeric nutrient standards is not feasible. If the department finds that attaining the base numeric nutrient standards is not feasible, the department shall approve an individual variance, which will become effective and incorporated into the applicant's permit only after adoption by the department in a formal rulemaking proceeding.

Section 3.1 of DEQ-12B emphasizes many of the conditions described in ARM 17.30.660 Sections 3, 5 and 6 regarding the analysis of alternatives to a variance; basis for the individual variance; and the process for review and approval by the state. In addition, Section 3.1 provides additional details on the considerations for individual variances. For example, Section 3.1 authorizes Montana to grant individual variance limits for up to 20 years and establishes that Montana must review the economic basis for the individual variance every three years. Section 3.1 also establishes that the variance will identify the "lowest effluent concentration that is feasible based on achieving the highest attainable condition."

[70] Morrison-Maierle, Kieser and Associates; and M.J Walsh and Associates. Water Quality Trading Business Case for Montana. 2014. Report prepared for MDEQ.

Basis for Approval

The EPA's water quality standards regulation at 40 CFR § 131.13 provides that variance policies may be adopted at state discretion, and that such general policies are subject to review and approval by the EPA.[71,72] As noted in the general variance section of this letter, under the EPA's water quality standards regulation, adoption of variances may be granted if it can be demonstrated that the otherwise applicable designated use and criterion or criteria are not feasible to attain during a certain time frame. 40 CFR § 131.10(g) sets forth the limited factors that may be used to justify variances.

ARM 17.30.660(3) specifies that variances are authorized only when no reasonable alternatives to the individual variance exist. ARM 17.30.660(5) and Section 3.1 of DEQ-12B specify that the analysis should evaluate non-discharge options (e.g., pollutant reduction or elimination, seasonal retention, land application, reuse, recharge) as well as nutrient trading and the use of compliance schedules. Such a requirement to conduct a thorough evaluation of alternatives, including non-discharge options, is an important component of deciding whether the WQS is attainable or whether it is unattainable for a period of time.

In addition to requiring an analysis of alternatives to the individual variance, ARM 17.660(3) identifies three situations (eligibility criteria) where adoption of individual variances is authorized. This is in contrast to the federal rule (40 CFR 131.10(g)), which authorizes removal of designated uses in six situations. The three eligibility criteria included in Montana's nutrient rules are as follows: (1) attainment of the base numeric nutrient standards is precluded due to economic impacts; (2) attainment of the base numeric nutrient standards is precluded due to limits of technology; or (3) attainment of the base numeric nutrient standards is precluded due to both economic impacts and limits of technology.

While none of the EPA's 131.10(g) factors allows for "limits of technology" to be the sole basis for a designated use removal, such technology limits may be relevant to a demonstration provided under 40 CFR § 131.10(g) where water quality-based controls would "result in substantial and widespread economic and social impact." Section 3.1 of DEQ-12B (page 3-4) supports this approach, stating that:

> "Unlike the general variances discussed in Section 2.0, the Department will only grant an individual variance to a permittee after the permittee has made a demonstration to the Department that meeting the underlying standards would require water quality-based controls that results in substantial and widespread economic impacts."

The EPA agrees that there may be site-specific circumstances where it would be reasonable for Montana to consider adoption of discharger-specific individual variances provided the demonstration also shows that a 40 CFR § 131.10(g) factor has been met. The EPA is approving Montana's individual variance provisions explained above as a general policy under 40 CFR § 131.13. The decision to issue such an individual variance can only be made by completing a rulemaking to revise the WQS for an individual discharger applicable to a specific water body segment based on review of site-specific information. Each individual variance will be a Montana WQS rule change that must be submitted to the EPA for review and approval or disapproval pursuant to 40 CFR § 131.20(c). Accordingly, each individual

[71] On September 4, 2013 the Agency proposed revisions to its WQS regulation that include new requirements addressing WQS variances. The comment period on the proposed rule closed on January 2, 2014.

[72] Guidance regarding State options is provided in Section 5.3 of the EPA Water Quality Standards Handbook (EPA-823-B-94-005, August 1994). http://water.epa.gov/scitech/swguidance/standards/handbook/index.cfm.

variance submitted for the EPA's review must include the Attorney General's certification and be consistent with the CWA and the EPA's implementing regulations, including all applicable public participation requirements. Thus, the EPA's review of Montana's individual variance authorizing provision need not evaluate each hypothetical variance the state may issue under ARM 17.30.660(3), (5) and (6) and consider whether such a variance would be consistent with the CWA and the EPA's implementing regulation. The EPA's approval of Montana's variance provision is not an automatic approval of any future variance the state wishes to grant pursuant to these provisions.

The EPA concludes that individual variance provisions in ARM 17.30.660(3), (5) and (6) are consistent with the EPA's requirements for individual variances. These provisions are approved.

Water Quality Protections that Apply While an Individual Variance is in Effect

Section 3.1 of DEQ-12B specifies that "the variance application will identify the lowest effluent concentration that is feasible based on achieving the highest attainable condition." In addition, ARM 17.30.660(4) and Section 3.2 of DEQ-12B address situations where reductions may be needed for one nutrient component of the NNC (e.g., TP) but not both (e.g., TP and TN). This section authorizes Montana to consider an individual variance request if the applicant can demonstrate, using water quality modeling, that designated uses are protected by focusing on a single nutrient. If the applicant can show that installing technology to address dual nutrient control would not improve water quality beyond what is projected with technology designed to reduce a single nutrient, the state will consider an individual variance for that nutrient parameter. In situations where individual variances are authorized based on this modeled demonstration, ambient monitoring is required to document designated use protection.

ARM 17.30.660(4) reads:

> "(4) The department may approve the adoption of an individual variance that specifies interim effluent limits different from those contained in general variance limits contained in Department Circular DEQ-12B (July 2014 edition), if water quality modeling demonstrates that greater emphasis on the reduction of one nutrient may achieve similar water quality and biological improvements as would the equal reduction of both nitrogen and phosphorus. The variance must provide effluent limits that reflect the lowest effluent concentration that is feasible based on achieving the highest attainable condition for the receiving water. A person shall submit the proposed effluent limits and supporting data in an application for an individual nutrient variance under (3). A person who has an individual variance with effluent limits that are based on this section shall, in each subsequent triennial review of those limits conducted pursuant to 75-5-313(7), MCA, collect and submit water quality data to demonstrate whether the biological status of the receiving water continues to justify those effluent limits."

In these situations, ARM 17.30.660(4) and Section 3.2 of DEQ-12B authorize Montana to set interim variance limits that reflect the highest attainable condition and require collection of water quality data to demonstrate that designated uses are supported. In addition to Montana's rule language, Sections 4.0 and 4.1 of Montana's implementation guidance[73] describe Montana's recommended approaches for dischargers interested in pursuing an individual variance based on water quality modeling: mechanistic modeling outputs or empirical data showing that the designated uses are being met.

[73] Page 12-13. Montana Department of Environmental Quality, 2014. Base Numeric Nutrient Standards Implementation Guidance. Version 1.0. Helena, MT: Montana Dept. of Environmental Quality.

In all scenarios, the expectation is that the interim effluent limit will reflect the lowest effluent concentration that is feasible based on the highest attainable condition.

Basis for Approval

The EPA's position is that variances must reflect the highest attainable condition for the duration of the variance.[74]

The procedures Montana has adopted for individual variances are consistent with the EPA's regulations in 40 CFR Part 131 and provides requirements that will facilitate progress towards the underlying designated use and applicable NNC. In situations where attainment of the water quality standard is not feasible for a period of time, the policy will require the highest degree of protection that *is* feasible, and that such requirements are re-examined not less than once every three years. As discussed earlier, any individual variance must be adopted through a state rulemaking and submitted to the EPA for review and approval. The EPA will base its review upon the applicable regulatory provisions at 40 CFR Part 131.

The EPA finds that ARM 17.30.660(4) and sections 3.1 and 3.2 are consistent with the CWA requirements and EPA's regulations. Any subsequent individual variance must include a demonstration consistent with the requirements in 40 CFR § 130.10, including the requirement that the state demonstrate that a 131.10(g) factor has been met. These provisions are approved.

NPDES Permits, and CWA Section 303(d) where there is an applicable variance

Generally, when a discharger is subject to a WQS variance, for the period of time when a variance is in effect, CWA National Pollutant Discharge Elimination System (NPDES) permits for discharges included in the variance will include limits (e.g., the "interim variance limits") derived from or specified by the variance. This approach is consistent with 40 CFR § 122.44(d)(1)(vii)(A) which requires WQBELs that "derive from and comply with" water quality standards. In situations where a TMDL establishes a wasteload allocation and a variance is granted, the permit should include effluent limits derived from the variance including any interim effluent limits approved in the variance. In situations where the discharger is meeting the waste load allocation defined in an approved TMDL, a variance is not needed. ARM 17.30.660(7) addresses this point.

However, regarding impairment decisions and TMDLs, CWA Section 303(d)(1)(A) requires that each State shall identify "those waters within its boundaries for which the effluent limitations required by section 301(b)(1)(A) and section 301(b)(1)(b) are not stringent enough to implement any water quality standard applicable to such waters" (emphasis added). Accordingly, listing decisions must consider the underlying designated use and criteria.

ALTERNATIVE VARIANCE

MCA 75-5-313(10)(a) and (b) authorize Montana to issue an "alternative" variance in situations where the discharger is an "insignificant" source of the nutrient load. Section 5.0 (page 15) of

[74] 1998 ANPRM, 78 Federal Register 54531.

Montana's Implementation Guidance explains that Montana may authorize an alternative variance if the permittee can demonstrate that meeting the general variance would not result in an environmentally significant water quality improvement. The guidance specifies that Montana will review requests for an alternative variance on a case-by-case basis.

However, Montana did not adopt any regulatory provisions related to "alternative" variances and is not part of the submission EPA received. Because EPA's approval does not include approval of such "alternative" variances, such variances are not effective for CWA purposes. As noted in the EPA's 2011 letter to Montana[75], none of the 40 CFR § 131.10(g) factors authorize variances based on *de minimus* (aka "insignificant") considerations; therefore, a variance based on a *de minimus* demonstration would not comply with the EPA's regulations. Instead, *de minimus* situations may be addressed through the development of total maximum daily load (TMDL) allocations pursuant to CWA Section 303(d). This approach is described in ARM 17.30.660(7) and addresses situations where a TMDL has been approved and the discharger meets the waste load allocation. As discussed earlier, the decision to issue such an individual variance can only be made by completing a rulemaking to revise the WQS for an individual segment based on review of site-specific information. The EPA will review any WQS variance based on the applicable requirements at 40 CFR Part 131. Absent an EPA-approved variance, the permit writer must use the NNC the EPA approved today, if applicable, to evaluate reasonable potential and, if necessary, develop limits as stringent as necessary to meet the applicable water quality standards (i.e., NNC). *See* CWA Section 301(b)(1)(C), 40 CFR § 122.44(d)

[75] Letter from Jim Martin, EPA Region 8 Regional Administrator to Richard Opper, MDEQ Director, 16 March 2011.

EXHIBIT D - EPA's May 2022 Action Letters Disapproving Montana's Elimination of NNC under SB358

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
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May 10, 2022

Ref: 8WD-IO

SENT VIA EMAIL

Director Christopher Dorrington
Montana Department of Environmental Quality
P.O. Box 200901
Helena, Montana 59620-0901
CDorrington2@mt.gov

Subject: EPA's action on Montana's water quality standards in Sections 2(1), 3, 4, and 7 of Senate Bill 358

Dear Director Dorrington:

The U.S. Environmental Protection Agency (EPA) has determined that legislative actions in Section 2(1), 3, 4, and 7 of Senate Bill 358 (SB 358) signed into law on April 30, 2021, include changes that are new or revised water quality standards (WQS) that EPA has the authority and duty to approve or disapprove under the CWA section 303(c)(3). Although the statutory changes took effect under state law on April 30, 2021, the new and revised WQS are not effective for CWA purposes, including for implementation in the CWA Section 402 National Pollutant Discharge Elimination System (NPDES) permitting program (see 40 C.F.R. 131.21(c)), absent EPA's approval.

The Montana Department of Environmental Quality (MDEQ) informed EPA on May 3, 2021, that it did not intend to submit the statutory changes to EPA for review pursuant to CWA Section 303(c).[1] EPA is nonetheless obligated to review and act pursuant to CWA Section 303(c) and 40 C.F.R. Part 131 regarding certain statutory changes that constitute new or revised WQS. EPA is disapproving these provisions because the revisions are not consistent with the requirements of the CWA and 40 C.F.R. Part 131. The disapproved provisions are: (1) Section 2(1) of SB 358 specifying that Montana's numeric nutrient criteria (NNC) contained in MDEQ's Department

[1] May 3, 2021 email from Myla Kelly, MDEQ Water Quality Standards Section Supervisor to Tonya Fish, EPA Region 8 Water Quality Section.

Circular DEQ-12A[2] cannot be used for permitting purposes; (2) Section 3 of SB 358 which mandates the removal of all references to the NNC and general variances by the Board of Environmental Review (Board); (3) Section 4 of SB 358 which mandates the removal of all references to the NNC and general variances by MDEQ; and (4) Section 7[3] of SB 358 specifying changes to Montana's antidegradation (nondegradation) program. Therefore, these revised and new WQS cannot be used for any CWA purpose. The enclosure contains a more detailed rationale for today's action.

Clean Water Act Review Requirements

CWA section 303(c)(2) requires states and authorized Indian tribes[4] to submit new or revised WQS to EPA for review. EPA is required to review and approve, or disapprove, the submitted standards. In this case, Montana did not submit SB 358 to EPA for review. However, EPA's authority and duty to evaluate whether a provision is a new or revised WQS is not dependent upon whether the provision was submitted to EPA for review.[5]

EPA concludes that Sections 2(1), Section 3, and Section 4 of SB 358 constitute revised WQS and Section 7 constitutes a new WQS. The enclosure includes EPA's evaluation concluding that these provisions constitute revised and new WQS and EPA's rationale for disapproval.

Today's Action

EPA is disapproving Section 2(1) of SB 358 because Section 2(1) revises the desired condition for the applicable waterbodies to be the condition described by the general narrative criteria (narrative criteria) only (i.e., no longer including the NNC) without adequate information to demonstrate that the narrative criteria alone protects the designated uses. The state's permitting record over the past two years demonstrates that the implementation of the narrative criteria alone does not protect the designated use, as required by 40 C.F.R. § 122.44(d)(1).[6] Additionally, the narrative criteria alone, as informed by the record supporting the NNC, does not contain sufficient parameters or constituents to protect the designated use consistent with 40 C.F.R. § 131.11(a)(1).[7] Applying a similar rationale, EPA is disapproving Section 3 and Section 4 of SB 358 because these sections revise the desired condition for the applicable waterbodies by

[2] deq.mt.gov/files/Water/WQPB/Standards/PDF/NutrientRules/CircularDEQ12A_July2014_FINAL.pdf.
[3] For purposes of this action letter, the term "Section 7" is only referring to that portion codified as MCA 75-5-317(2)(u). MCA 75-5-317(2)(v) is addressed in EPA's May 6, 2022 memo to the file: "SB 358 Water Quality Standards Review; Rationale for EPA not acting on remaining provisions of SB358."
[4] CWA section 518(e) specifically authorizes EPA to treat eligible Indian tribes in the same manner as states for purposes of CWA section 303. *See also* 40 C.F.R. § 131.8.
[5] The U.S. Court of Appeals for the 11th Circuit held that EPA has a mandatory duty to act on new or revised state WQS, whether or not they are submitted to EPA. *Miccosukee Tribe of Indians of Florida v. EPA,* 105 F.3d 599 (11th Cir. 1997); *FPIRG v. EPA*, 386 F.3d 1070 (11th Cir 2004) (concurring with the reasoning in *Miccosukee*).
[6] EPA evaluated the state's permitting record since May 2020, when MDEQ began to apply the general narrative criteria rather than the NNC in determining whether a discharge had the reasonable potential to cause or contribute to an excursion of WQS.
[7] 40 C.F.R. § 131.11(a)(1) requires that criteria must be "based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use."

mandating removal of any reference in Montana's regulations to the NNC by the Board (Section 3) and MDEQ (Section 4) without ensuring that the remaining criteria contain sufficient parameters or constituents to protect the designated use consistent with 40 C.F.R. § 131.11(a)(1). This deficiency is documented in the state's permitting record over the past two years. EPA is also disapproving Montana's new nondegradation provision in Section 7 because it is inconsistent with 40 C.F.R. § 131.12(a)(2).

Endangered Species Act Requirements

In addition to EPA's review pursuant to section 303(c) of the CWA, section 7(a)(2) of the Endangered Species Act (ESA) requires federal agencies, in consultation with the U.S. Fish and Wildlife Service (USFWS), to ensure their actions are not likely to jeopardize the continued existence of federally listed species or result in the destruction or adverse modification of designated critical habitat of such species. EPA's disapproval of Section 2(1), Section 3, Section 4, and Section 7 of SB 358 is not considered an "action" under ESA Section 7(a)(2) as defined at 50 C.F.R. § 402.02. As such, EPA's disapproval is not subject to ESA Section 7(a)(2) consultation requirements given EPA's action is not authorizing, funding or carrying out any activity or program. Even if EPA's disapproval of Sections 2(1), 3, 4, and 7 of SB 358 were to be considered an "action" subject to ESA Section 7(a)(2) consultation obligations, EPA's disapproval will not result in any change to the existing WQS under the CWA. Therefore, EPA's action will have **no effect** on listed species or their designated critical habitat. EPA has no ESA consultation obligation for today's action.

Indian Country

EPA's disapproval of Montana's WQS does not extend to Indian country as defined in 18 U.S.C. § 1151. Indian country in Montana generally includes (1) lands within the exterior boundaries of the following Indian reservations located within Montana: the Blackfeet Indian Reservation, the Crow Indian Reservation, the Flathead Reservation, the Fort Belknap Reservation, the Fort Peck Indian Reservation, the Northern Cheyenne Indian Reservation, and the Rocky Boy's Reservation; (2) any land held in trust by the United States for an Indian tribe (including but not limited to the Little Shell Tribe of Chippewa Indians); and (3) any other areas that are "Indian country" within the meaning of 18 U.S.C. § 1151. EPA, or eligible Indian tribes, as appropriate, retain responsibilities under CWA Section 303 in Indian country. Today's action is not intended as an action to approve or disapprove WQS for waters within Indian country.

Conclusion

If you have any questions related to EPA's action on Sections 2(1), 3, or 4 of SB 358, please contact Tina Laidlaw at (406) 457-5016 or laidlaw.tina@epa.gov. For questions related to EPA's action on SB 358 Section 7, please contact Tonya Fish on my staff at fish.tonya@epa.gov.

Sincerely,

DARCY OCONNOR

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Darcy O'Connor, Director
Water Division

Enclosure

cc: Amy Steinmetz, Administrator, Water Quality Division

Rationale for the EPA's Disapproval of Montana's Nutrient Provision in Sections 2(1), 3, 4, and 7 of Senate Bill 358

Water quality standards (WQS) include: (1) designated uses; (2) water quality criteria that support the designated uses; and (3) antidegradation requirements. 40 C.F.R. Part 131. At issue in this action are water quality criteria for nutrients (i.e., nitrogen and phosphorus) and antidegradation requirements for high quality waters.

I. Background

In 2014, Montana adopted WQS for nutrients and submitted the package to EPA for action under CWA Section 303(c). The standards included numeric nutrient criteria (NNC) for total nitrogen (TN) and total phosphorus (TP) to protect the designated uses of wadeable streams and certain segments of the Yellowstone River, WQS variances for nutrients justified based on the economic impacts of attaining the NNC for facilities discharging to these waters, and non-severability provisions linking the applicability of nutrient criteria to the availability of WQS variances for nutrients. EPA approved the NNC and WQS variances pursuant to CWA Section 303(c) in 2015. In 2017, EPA approved Montana's revised variance for a subset of dischargers. EPA subsequently approved the non-severability provisions in 2020.[8]

Montana Department of Environmental Quality (MDEQ) considered multiple lines of evidence in establishing the 2014 NNC including: (a) nutrient concentrations from reference distributions; (b) nitrogen to phosphorus (N:P) ratios observed at reference sites; and (c) thresholds identified in scientific studies derived from stressor-response analyses. The record accompanying MDEQ's 2014 adoption of the NNC and EPA's 2015 CWA Section 303(c) approval of the NNC demonstrates the NNC are scientifically defensible and protective of designated uses, and that both TN and TP need to be addressed and limited to protect the applicable designated uses. EPA is not aware of any information demonstrating that the science has changed to alter this conclusion and EPA continues to support dual nutrient control.[9]

In 2021, Montana enacted state legislation (Senate Bill 358 or SB 358) directing MDEQ to write permits "in a manner consistent with" the narrative criteria,[10] "delete all references to" the NNC, and adopt rules

[8] Litigation has occurred over the past several years regarding EPA's actions on Montana's nutrient water quality standards. On October 6, 2021, the U.S. Court of Appeals for the Ninth Circuit issued an opinion upholding EPA's approval of Montana's water quality standards variance. *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, 15 F.4th 966 (9th Cir. 2021). The Ninth Circuit remanded the case to the U.S. District Court for the District of Montana with specific instructions regarding summary judgment in the case. The district court has not yet acted on the remand. However, under a district court order issued on October 20, 2020, Montana's variance approved by EPA on October 31, 2017, and the state's numeric nutrient criteria approved by EPA on February 26, 2015, remain in effect for CWA purposes. *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, No. CV16-52-GF-BMM, CV-20-27-BMM (D. Mont. Oct. 30, 2020).

[9] USEPA. Preventing Eutrophication: Scientific Support for Dual Nutrient Criteria. February 2015. Available at: www.epa.gov/sites/default/files/documents/nandpfactsheet.pdf.

[10] ARM 17.30.637 GENERAL PROHIBITIONS (1) State surface waters must be free from substances attributable to

related to Montana's existing narrative criteria that provide for the development of an adaptive management program. EPA is acting on a subset of provisions in SB 358 that it found to be new or revised WQS. Specifically, Section 2(1) of SB 358 directs MDEQ to permit nutrient discharges, prior to adoption of final rules, "in a manner consistent with" Montana's narrative nutrient criteria and legislative intent. Section 3 directs the Montana Board of Environmental Review (Board)[11] to delete all references to the NNC and general variances and Section 4 directs MDEQ to delete all references to the NNC and general variances. In addition, Section 7[12] includes a new antidegradation (Montana uses the term nondegradation) requirement that describes conditions for determining that proposed activities that discharge phosphorus or nitrogen will not cause significant degradation of water quality and therefore are exempt from the antidegradation review process required by 40 C.F.R. § 131.12(a)(2).

On April 30, 2021, Montana Governor Gianforte signed SB 358 making it effective for state law purposes. Montana did not submit SB 358 to EPA for review pursuant to CWA Section 303(c)(2).

II. EPA Evaluation of Whether Sections of SB 358 are WQS Subject to CWA Section 303(c) Action

CWA section 303(c)(2) requires states to submit new or revised WQS to EPA. CWA section 303(c)(3) provides for EPA review of such WQS. EPA's authority and duty to review and approve or disapprove a new or revised WQS is not dependent upon whether the provision was submitted to the EPA for review.[13] Therefore, EPA analyzed SB 358 to determine whether it contains any new or revised WQS.

In October 2012, EPA posted a document online, entitled: "*What is a New or Revised Water Quality Standard Under CWA 303(c)(3)? Frequently Asked Questions*" (FAQs).[14] The EPA developed the document as an aid to discern when state or authorized tribal provisions constitute new or revised WQS, stating: "To date, EPA has evaluated each situation on a case-by-case basis. These FAQs consolidate EPA's plain language interpretation (informed by the CWA, EPA's implementing regulations at 40 C.F.R. Part 131, and relevant case law) of what constitutes a new or revised water quality standard that the Agency has the CWA Section 303(c)(3) authority and duty to approve or disapprove." The FAQs

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municipal, industrial, agricultural practices or other discharges that will:… (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and (e) create conditions which produce undesirable aquatic life.

[11] Montana adopted legislation in 2021 that removed the authority of the Board to conduct rulemaking related to water quality standards. MDEQ has confirmed it is now the Montana governmental entity that is responsible for implementing these deletions as part of any future rulemaking.

[12] For purposes of this action letter, the term "Section 7" is only referring to that portion codified as MCA 75-5-317(2)(u). MCA 75-5-317(2)(v) is addressed in EPA's May 6, 2022 memo to the file: SB 358 Water Quality Standards Review; Rationale for EPA not acting on remaining provisions of SB358.

[13] The U.S. Court of Appeals for the 11th Circuit has held that EPA has a mandatory duty to act on new or revised state WQS, whether or not they are submitted to EPA. *Miccosukee Tribe of Indians of Florida v. EPA,* 105 F.3d 599 (11th Cir. 1997); *FPIRG v. EPA*, 386 F.3d 1070 (11th Cir 2004) (concurring with the reasoning in *Miccosukee*). This reasoning has also been followed by a district court in Maine. *Friends of Merrymeeting Bay v. Olsen*, 839 F.Supp.2d 366, 375 (D. Maine 2012) ("EPA is under obligation to review a law that changes a water quality standard regardless of whether a state presents it for review.")

[14] EPA No. 820-F-12-017 (October 2012), www.epa.gov/sites/default/files/2014-11/documents/cwa303faq.pdf.

were, in part, an outgrowth of the Agency's experience in prior cases, and they are currently referenced in the EPA's *Water Quality Standards Handbook*.

EPA's FAQs describe a 4-part test: if all four questions below are answered "yes," then the provision would likely constitute a new or revised WQS that the EPA has the authority and duty to approve or disapprove under CWA Section 303(c)(3).

1) Is it a legally binding provision adopted or established pursuant to state or tribal law?
2) Does the provision address designated uses, water quality criteria (narrative or numeric) to protect designated uses, and/or antidegradation requirements for waters of the United States?
3) Does the provision express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the United States immediately or mandate how it will be expressed or established for such waters in the future?
4) Does the provision establish a new WQS or revise an existing WQS?

Question 1 is a threshold question of legal applicability that stems from the use of the terms "adopt," "law," "regulations," and "promulgate" in CWA section 303(a)-(c) and EPA's regulations at 40 CFR 131.3(i) which specifies that WQS "are provisions of state or federal law."[15] Question 2 reflects the CWA articulation that WQS include three core components: designated uses, water quality criteria, and antidegradation requirements (see CWA sections 303(c)(2)(A) and 303(d)(4)(B)). Question 3 addresses the substance of the provision and whether it changes one or more of the components of a WQS, such that the provision expresses or establishes a different water quality goal for CWA purposes.[16] Consistent with its placement as the final question, Question 4 only needs to be evaluated if Questions 1-3 are all answered in the affirmative. It clarifies that EPA's authority, as specified in CWA section 303(c)(2)(A), is to act only on new or revised WQS provisions, which includes provisions that have not previously been approved by EPA under section 303(c).[17] EPA's evaluation of whether a provision is new or revised requires a consideration of the effect of the provision on the WQS themselves. For example, if a provision meets the first three considerations but already exists as part of the state or authorized tribe's EPA-approved and CWA-applicable WQS and was only copied over to another section of the regulation for ease of reference, such a re-statement does not have the effect of establishing or changing the applicable WQS. Therefore, the provision is not new or revised, and EPA does not have the authority or duty to take an action under CWA section 303(c).

EPA reviewed SB 358 and determined that Section 2(1), Section 3, and Section 4 of SB 358 are revised WQS and Section 7 is a new WQS subject to EPA action pursuant to CWA Section 303(c).

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[15] 40 CFR 131.3(i): Water quality standards are provisions of State or Federal law which consist of a designated use or uses for the waters of the United States and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Act.
[16] See 40 CFR 131.2: A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria that protect the designated uses.
[17] As stated in EPA's 2012 4-part test FAQs "A provision that EPA has never approved as a WQS would be considered 'new.' It must also meet the other three considerations to be a new or revised WQS."

A. Section 2(1) of SB 358:

"Section 2. Transition for nutrient standards -- department. (1) Until final [adaptive management program] rules are adopted pursuant to [section 1], the department shall administer the discharge permitting program under 75-5-402 in a manner consistent with ARM 17.30.637[18] [the narrative standard] and the intent of [this act]."

1. **Is it a legally binding provision adopted or established pursuant to state or tribal law?** Yes. Section 2(1) is a legally binding provision under state law as it is part of the SB 358 legislation passed by the Montana legislature and signed by Governor Gianforte on April 30, 2021.

2. **Does the provision address designated uses, water quality criteria (narrative or numeric) to protect designated uses, and/or antidegradation requirements for waters of the United States?** Yes. Section 2(1) addresses water quality criteria for nutrients to protect designated uses for waters of the United States within Montana, specifically wadeable streams and segments of the Yellowstone River.

3. **Does the provision express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the United States immediately or mandate how it will be expressed or established for such waters in the future?** Yes. Previously, wadeable streams and segments of the Yellowstone River had to meet both the narrative criteria and the numeric nutrient criteria. Section 2(1) revised the desired condition immediately with respect to nutrients for wadeable streams and segments of the Yellowstone River to attaining only the narrative criteria, and no longer requiring attainment of the scientifically defensible and protective numeric nutrient criteria.

   EPA's regulation at 40 C.F.R. § 131.21(d) states that applicable WQS are the minimum standards which must be used when the CWA and regulations implementing the CWA refer to WQS, including developing NPDES (here Montana Pollutant Discharge Elimination System (MPDES)) permit limitations under section 301(b)(1)(C) of the CWA. As described above, the language of Section 2(1) specifies that all MPDES permits shall be "consistent with" the narrative criteria and "the intent" of SB 358. Because Section 2(1) establishes the minimum standards that must be used when developing MPDES permit limitations, Section 2(1) changes the desired condition for Montana's wadeable streams and segments of the Yellowstone River from both the state's narrative criteria and the NNC to only the state's narrative criteria.

[18] ARM 17.30.637 includes general prohibitions and states: "State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will:…(d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and (e) create conditions which produce undesirable aquatic life."

As additional evidence, in a June 6, 2021 email, Amy Steinmetz, MDEQ Water Quality Division Administrator, clarified MDEQ's interpretation of this provision: "*The legislation directs DEQ to use the narrative standard during the transition to the adaptive management rules. Unless we disregard the plain language of the transition section, the NNC are not to be used to establish permit limits.*"[19] Thus, MDEQ confirmed that the state cannot interpret the narrative standard using the NNC for permitting purposes. MDEQ has further demonstrated through its implementation in recent permits that the narrative standard is the desired condition-- not the NNC; thus, reinforcing that Section 2(1) of SB 358 expresses a revised desired condition for Montana's wadeable streams and segments of the Yellowstone River.

4. **Does the provision establish a new WQS or revise an existing WQS?** Yes. Section 2(1) meets the first three questions of the 4-part test and has not been previously approved by EPA under CWA section 303(c).[20]

B. Sections 3 and 4 of SB 358:

Section 3. Board to amend rules. The board of environmental review shall amend ARM 17.30.201, 17.30.507, 17.30.516, 17.30.602, 17.30.619, 17.30.622, 17.30.623, 17.30.624, 17.30.625, 17.30.626, 17.30.627, 17.30.628, 17.30.629, 17.30.635, 17.30.702, and 17.30.715 to delete all references to department circular DEQ-12A, department circular DEQ-12B, base numeric nutrient standards, and nutrient standards variances.

Section 4. Department to amend rules. The department of environmental quality shall amend ARM 17.30.602 to delete all references to department circular DEQ-12A, department circular DEQ-12B, base numeric nutrient standards, and nutrient standards variances.

1. **Is it a legally binding provision adopted or established pursuant to state or tribal law?** Yes. Sections 3 and 4 are legally binding provisions under state law as they are part of the SB 358 legislation passed by the Montana legislature and signed by Governor Gianforte on April 30, 2021.

2. **Does the provision address designated uses, water quality criteria (narrative or numeric) to protect designated uses, and/or antidegradation requirements for waters of the United States?** Yes. Sections 3 and 4 address water quality criteria for nutrients to protect designated uses for waters of the United States within Montana, specifically wadeable streams and segments of the Yellowstone River.

3. **Does the provision express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the**

[19] June 6, 2021 email from Amy Steinmetz, MDEQ Water Quality Division Administrator, to Bert Garcia, Acting Director Water Division, EPA Region 8.
[20] As stated in EPA's 2012 4-part test FAQs "A provision that EPA has never approved as a WQS would be considered 'new.' It must also meet the other three considerations to be a new or revised WQS."

United States immediately or mandate how it will be expressed or established for such waters in the future? Yes. Previously, wadeable streams and segments of the Yellowstone River had to meet both the narrative criteria and the numeric nutrient criteria. Sections 3 and 4 revise the desired condition by mandating that the state regulatory agency delete all references to the CWA-applicable and scientifically sound NNC through future rulemaking, leaving only the narrative criteria in place. Thus, the future desired condition regarding nutrients for applicable waters has been revised from attaining the NNC and the narrative criteria to only requiring attainment of the narrative criteria.

4. **Does the provision establish a new WQS or revise an existing WQS?** Yes. Sections 3 and 4 meet the first three questions of the 4-part test and has not been previously approved by EPA under CWA section 303(c).

Conclusion: Based on its application of the 4-part test, EPA has concluded that Section 2(1), Section 3, and Section 4 of SB 358 constitute revised WQS that EPA has a mandatory duty to review and either approve or disapprove, pursuant to CWA 303(c).

C. Section 7 of SB 358, Codified at MCA 75-5-317(2)(u)

New text is underlined below:

> "75-5-317. Nonsignificant activities. (1) The categories or classes of activities identified in subsection (2) cause changes in water quality that are nonsignificant because of their low potential for harm to human health or the environment and their conformance with the guidance found in 75-5-301(5)(c).
> (2) The following categories or classes of activities are not subject to the provisions of 75-5-303:
> (u) discharges of total phosphorus or total nitrogen that do not:
> (i) create conditions that are toxic or harmful to human, animal, plant, and aquatic life;
> (ii) create conditions that produce undesirable aquatic life; or
> (iii) cause measurable changes in aquatic life."

1. **Is it a legally binding provision adopted or established pursuant to state or tribal law?** Yes. Section 7 is a legally binding provision under state law as it is part of the SB 358 legislation passed by the Montana legislature and signed by Governor Gianforte on April 30, 2021.

2. **Does the provision address designated uses, water quality criteria (narrative or numeric) to protect designated uses, and/or antidegradation requirements for waters of the United States?** Yes. The provision addresses antidegradation requirements for waters of the United States within Montana.

3. **Does the provision express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the United States immediately or mandate how it will be expressed or established for such waters in the future?** Yes. The provision establishes the instream level of protection for waters of the United States within Montana, effective immediately. Section 7 describes circumstances for determining that proposed activities that discharge phosphorus or nitrogen will not cause significant degradation of water quality and therefore are exempt from the review process required by 40 C.F.R. § 131.12(a)(2).

4. **Does the provision establish a new WQS or revise an existing WQS?** Yes. The provision meets the first three questions of the 4-part test and has not been previously approved by EPA.

Conclusion: Based on its application of the 4-part test, EPA has concluded that Section 7 constitutes a new WQS that EPA has a mandatory duty to review and either approve or disapprove, pursuant to CWA Section 303(c).

III. Section 2(1), Section 3, and Section 4 of SB 358 Do Not Protect the Applicable Designated Uses

EPA's review of the sections that contain new WQS begins with an examination of MDEQ's record of implementing their WQS when the state believes the narrative criteria alone are in effect for permitting purposes based on the relevant NPDES regulations. This examination informs EPA's review of the changes to WQS based on the relevant WQS regulations and CWA provisions.

40 C.F.R. § 122.44(d)(1) requires that NPDES permits shall include any requirements necessary to "[a]chieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality. Such limitations must control all pollutants or pollutant parameters which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." 40 C.F.R. § 122.44(d)(1)(i). As EPA explained when promulgating this regulation, "Effluent limitations must attain and maintain water quality standards in order to be consistent with the requirements of the Clean Water Act." 54 Fed. Reg. 23868, 23873 (June 2, 1989).

In its summary judgment briefing filed in the challenge to EPA's 2020 approval of Montana's non-severability provisions that tied the NNC with the WQS general variances provisions, EPA addressed the future effect of Montana removing the NNC and reverting to the general narrative criteria. In that briefing, EPA noted it would be premature to predict how the state would implement its narrative criteria to address nutrients in the future and that EPA could not reasonably assume Montana's implementation of its narrative criteria would prove inadequate given that the state had developed a much more robust understanding of the science of nutrient pollution and was thereby far-better equipped than in the past to translate and implement the narrative criteria in NPDES permits.[21] Since the filing of

[21] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency,* No. 4:20-cv-000027-BMM (D. Mont.), Defendants' Reply Memorandum in Support of Defendants' Cross-Motion for Summary Judgment at page 7 (Sept. 9, 2020).

that briefing, subsequent information is now available to inform EPA's understanding of how the state is implementing the narrative criteria with respect to protection of the applicable designated uses from adverse effects of excess nutrients.

EPA evaluated the state's permitting record since May 2020, when MDEQ began to apply the general narrative criteria rather than the NNC in executing its permitting obligations described above. [22] Instead of applying the protective NNC or the supporting science to interpret the narrative criteria, permits issued by MDEQ from 2020 through 2022 demonstrate that the state is: a) not completing an adequate reasonable potential analysis based on an interpretation of the narrative criteria; and b) not setting permit limits that provide adequate protection of designated uses based on the narrative. EPA's May 6, 2022 memo to the file "Implementation by Montana of its Narrative Water Quality Standards in lieu of the Clean Water Act Applicable Numeric Nutrient Criteria," provides details on each permit reviewed by EPA along with the rationale documenting the state's permitting approach. EPA evaluated whether the state's actual implementation of the remaining narrative criteria would nonetheless be sufficient to protect designated uses. After careful evaluation of the record of the state's recent implementation of the narrative criteria in NPDES, EPA concludes it does not.

This record prompts an evaluation of whether the state's removal of the NNC, and reliance on the narrative criteria alone, result in criteria that contain sufficient parameters or constituents to protect the designated use as required by 40 C.F.R. § 131.11(a)(1). 40 C.F.R. § 131.11(a)(1) requires that "criteria must be based on sound scientific rationale and must contain sufficient parameters to protect the designated use." Montana's NNC were derived following EPA's recommended approaches for establishing NNC (i.e., reference-condition and stressor-response based analyses). MDEQ validated the proposed nutrient thresholds by comparing to regionally relevant dose-response that further strengthened the state's rationale for the proposed criteria.[23,24] In its 2015 approval of Montana's NNC, EPA concluded that: "Montana's integration of multiple approaches -- results from stressor-response studies; understanding of reference conditions; nutrient limitations -- minimizes the uncertainty associated with a single approach and further strengthens the technical basis for the final NNC values…Therefore, the EPA has determined that the NNC provisions are consistent with the federal requirements because, as discussed above, the state has demonstrated that the NNC for wadeable streams will protect aquatic life and recreational designated uses and are based on a sound scientific rationale that is consistent with the EPA guidance on deriving NNC using scientifically defensible methods. Accordingly, the EPA approves Montana's NNC."[25]

The record accompanying MDEQ's 2014 adoption of the NNC and EPA's 2015 CWA section 303(c) approval of the NNC demonstrates the NNC are based on sound science and protective of designated uses, and that both total nitrogen (TN) and total phosphorus (TP) must be addressed and limited to

[22] EPA May 6, 2022 memo to the file "Implementation by Montana of its Narrative Water Quality Standards in lieu of the Clean Water Act Applicable Numeric Nutrient Criteria."
[23] Suplee, Michael W., V. Watson, A. Varghese, and Joshua Cleland. 2008. Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers. Helena, MT: MDEQ Water Quality Planning Bureau.
[24] *Id.*
[25] See EPA Action letter dated February 26, 2015 from Martin Hestmark, Assistant EPA Regional Administrator, to Tom Livers, MDEQ Acting Director.

protect the applicable designated uses.[26] The need for dual-nutrient control for both TN and TP to protect designated uses in the affected waters is supported by Montana's own dosing study conducted in eastern Montana[27]

Section 2(1), Section 3, and Section 4 of SB 358 all result in removal of the NNC (now and in the future) from the expression of the desired condition of affected waters without identifying an alternative that provides adequate assurance that designated uses will be protected. The narrative criteria refer to preventing conditions that produce undesirable aquatic life, but lack the specificity provided by the NNC. The NNC provide specific protective TN and TP levels for the affected waters. At this time, the NNC and the supporting science are the only bases that Montana has identified that will protect its designated uses from adverse effects of excess nutrients. The scientific record indicates that dual control of both TN and TP is needed to assure protection of aquatic life in the affected waters. EPA must consider the availability of this science in its action today. With removal of the NNC and reliance on the narrative criteria alone, EPA lacks assurance that designated uses would be protected as required by 40 C.F.R. § 131.11(a)(1) given the demonstrated importance of TN and TP for the affected waters. This lack of assurance is further evidenced by the MDEQ permitting record over the past two years, as described above. Based on the available record, it is apparent that removal of the NNC results in criteria that do not contain sufficient parameters or constituents to protect designated uses with respect to the adverse effects of excess nutrients for the affected waters in Montana.

IV. EPA Action on Section 2(1), Section 3, and Section 4 of SB 358

For the reasons stated above, EPA finds that Section 2(1), 3, and 4 of SB 358 constitute new WQS that EPA has the authority and duty to approve or disapprove under CWA section 303(c)(3). Based on its review, EPA concludes that these provisions are not protective of the applicable designated uses with respect to nutrients as required by 40 C.F.R. § 131.11(a)(1) and do not contain sufficient parameters or constituents to protect the designated use. See 40 C.F.R. § 131.11(a)(1). Therefore, EPA disapproves these provisions because they do not comply with the requirements of the CWA and 40 C.F.R. Part 131.

Pursuant to CWA § 303(c)(3), if EPA determines that any standard is not consistent with the applicable requirements of the CWA or implementing regulation, the Agency shall notify the state or authorized tribe and specify the changes to meet the requirements. EPA's goal has been, and will continue to be, to work closely with states and authorized tribes throughout the WQS development process to ensure that statutory and regulatory requirements are clear.

Pursuant to 40 C.F.R. § 131.21(c), new or revised state standards that go into effect under state law after May 30, 2000, are not effective for CWA purposes unless and until approved by EPA. Once approved, they remain in effect unless EPA approves a revision or promulgates a more stringent standard. 40 CFR § 131.21(e). EPA previously approved Montana's NNC, on February 26, 2015, as meeting the requirements of the CWA and its implementing regulations, and EPA has not subsequently approved

[26] *Id.* Pages 7-11.
[27] Suplee, M.W., and V. Watson, 2013. Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers—Update 1. Helena, MT: Montana Dept. of Environmental Quality.

any revision to those criteria. Therefore, the NNC remain the applicable water quality standard for CWA purposes. Because the NNC remain in effect for all CWA purposes, changes are not necessary to meet the requirements of the CWA. MDEQ is required to use the NNC as the minimum standards for all CWA purposes, including identifying impaired waters and calculating TMDLs under CWA section 303(d) and 40 CFR § 130.7, developing NPDES permit limitations under CWA section 301(b)(1)(C) and 40 CFR §§ 122.44(d) & 123.25(a)(15), evaluating proposed discharges of dredged or fill material under CWA section 404 and 40 CFR Part 230, and issuing certifications under CWA section 401 and 40 CFR Part 121. 40 C.F.R. 131.21(d).

EPA understands that MDEQ is actively engaged in rulemaking designed to adopt rule language related to the narrative criteria per SB 358 Section 1. EPA will review any future new or revised WQS that MDEQ adopts consistent with EPA's applicable statutory and regulatory requirements. EPA recognizes the challenges associated with establishing and implementing WQS for nutrients. This action does not preclude the state from developing a modified approach to address nutrients in their WQS. However, any modification must meet the requirements of the CWA and its implementing regulation. EPA's regulation at 40 CFR § 131.14 provides a mechanism to accommodate elements of adaptive management approaches.

Based on the specific facts described in this letter, the state cannot remove their protective NNC without also providing a suitable replacement (i.e., one that provides for criteria that contain sufficient parameters or constituents to protect the designated use) at the same time.

V. Section 7 of SB 358, Codified at MCA 75-5-317(2)(u) Does Not Protect High Quality Waters

The federal requirements for antidegradation at 40 C.F.R. § 131.12 implement the CWA section 101(a) objective to ". . . restore and *maintain* the chemical, physical and biological integrity of the Nation's waters" (emphasis added). 40 C.F.R. § 131.12 requires states and authorized tribes to develop two elements for their antidegradation programs: an antidegradation policy and antidegradation implementation methods. State and tribal antidegradation policies and implementation methods must be consistent with 40 C.F.R. § 131.12 and with each other. 40 C.F.R. § 131.12(b). 40 C.F.R. § 131.5(a)(3) specifies that EPA's review and decision to approve or disapprove WQS involves a determination of "[w]hether any State adopted antidegradation implementation methods are consistent with § 131.12."

Antidegradation policies are a set of legally binding requirements included in state or tribal WQS that describe the expectations for preventing or minimizing degradation to waters. State and tribal antidegradation policies must provide for the protection of three antidegradation categories: existing uses, high quality waters, and outstanding national resource waters. 40 C.F.R. § 131.12(a)(1)-(3). These categories of protection are commonly referred to as "tiers." Montana's nondegradation policy (MCA 75-5-303) was approved by EPA in 1999.[28]

[28] See EPA's action letter dated January 26, 1999 from Jack W. McGraw, EPA Deputy Regional Administrator, to Marc Racicot, The Honorable Governor of Montana.

Today's action is relevant to the requirements of 40 C.F.R. § 131.12(a)(2), or "Tier 2," which addresses high quality waters – those with water quality better than necessary to support the CWA Section 101(a)(2) uses, which include the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water.[29] In other words, these waters can receive an additional amount of a pollutant and still meet the quality necessary to support the CWA section 101(a)(2) uses. In the context of antidegradation, the difference between the criterion and the actual, better water quality achieved in the water body is called assimilative capacity (see Figure 1).

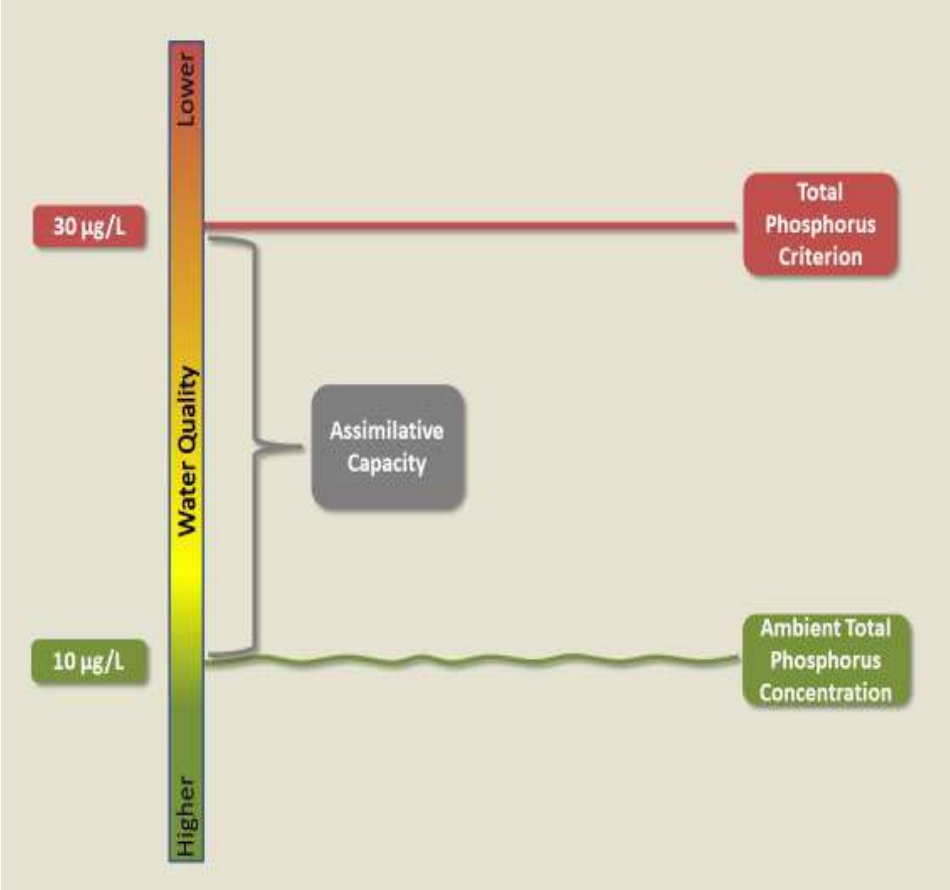

Figure 1. Example of a High Quality Water. The current ambient concentration of total phosphorus of 10 µg/L is better than the total phosphorus aquatic life criterion of 30 µg/L. In this example the waterbody has available assimilative capacity of 20 µg/L total phosphorus.

Per 40 C.F.R. § 131.12, the water quality of high-quality waters must be maintained and protected unless the state or authorized tribe makes a finding that a lowering[30] of water quality is necessary to

[29] *Water Quality Standards Regulation.* 48 Fed. Reg. 51403 (November 8, 1983).
[30] *Lowering* means an increase in pollution, resulting from an activity that would use some of the assimilative capacity in a high quality water. In this regard, the quality of water is lowered closer to the criterion for a specific parameter.

accommodate important economic or social development in the area in which the waters are located. This structured process is referred to as "Tier 2 review" and must include all of the requirements described in 40 C.F.R. § 131.12(a)(2), including: (1) analysis of alternatives; (2) analysis of economic or social development; (3) intergovernmental coordination and public participation; (4) ensuring protection of existing uses; and (5) ensuring pollution control measures are properly implemented for point and non-point sources.

Antidegradation implementation methods are additional documents and/or provisions in which a state or authorized tribe describes methods for implementing its antidegradation policy (i.e., *how* the policy will be implemented).[31] Some states have included in their antidegradation implementation methods the concept of "*de minimis"* exemptions from Tier 2 reviews. Such *de minimis* provisions are intended to prioritize and manage limited resources by specifying that certain activities do not need a Tier 2 review because they only cause an insignificant or "trivial" lowering of high-water quality.[32] For example, a state or authorized tribe could identify a percentage of assimilative capacity lost for a parameter that would be considered insignificant or *de minimis*. States and authorized tribes have the discretion to include provisions that identify such a *de minimis* threshold in their antidegradation programs, as long as they are consistent with the CWA and 40 C.F.R. § 131.12. This requires appropriate technical justification demonstrating that the *de minimis* threshold and its application would result in truly insignificant degradation, considering cumulative impacts over time (i.e., collectively, degradation from all activities on the water body must be considered when determining whether the *de minimis* threshold has been exceeded and a Tier 2 review is needed to allow additional degradation).[33] See Figure 2.

[31] Water Quality Standards Regulatory Revisions. 80 Fed. Reg. 51034 (August 21, 2015).
[32] *See Alabama Power Co. v. Costle*, 636 F. 2d 323, 360 (D.C. Circ. 1979)
[33] *See Ky. Waterways Alliance v. Johnson*, 540 F.3d 466, 486-87 (5th Cir. 2008)

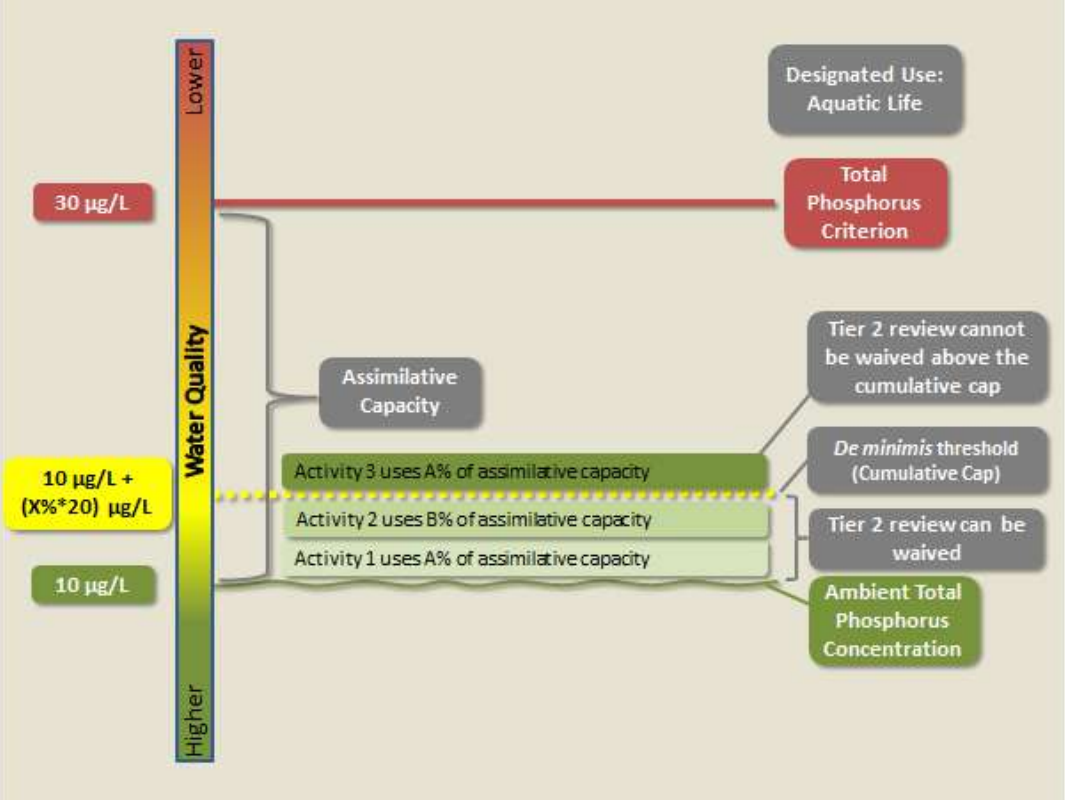

Figure 2. Example of the Cumulative Impact of Multiple *de minimis* Activities. The level of degradation considered insignificant by the state or authorized tribe, or *de minimis*, is X% of the assimilative capacity (in this example, X% of 20 µg/L). This threshold is set as a cumulative cap. Lowering of the high water quality may be allowed without a Tier 2 review up until the point that the collective degradation has used up X% of that water body's assimilative capacity. After that point, the state or authorized tribe must conduct a Tier 2 review before allowing any additional lowering of water quality. Here, activity 1 used A% of the assimilative capacity and activity 2 used B% of the assimilative capacity, which collectively used X% of the water body's assimilative capacity. A Tier 2 review could have been waived for these activities. Activity 3 also uses A% of the assimilative capacity, but since activities 1 and 2 have already collectively used X% of the water body's assimilative capacity, the state or authorized tribe must perform a Tier 2 review before the lowering of high water quality is allowed for Activity 3.

Section 7 of SB 358 establishes a new *de minimis* provision in Montana's antidegradation implementation methods by exempting discharges of total phosphorus or total nitrogen from Tier 2 review if they meet certain conditions. New text is underlined below:

> "75-5-317. Nonsignificant activities. (1) The categories or classes of activities identified in subsection (2) cause changes in water quality that are nonsignificant because of their low potential for harm to human health or the environment and their conformance with the guidance found in 75-5-301(5)(c).
> (2) The following categories or classes of activities are not subject to the provisions of 75-5-303:[34]
> (u) discharges of total phosphorus or total nitrogen that do not:
> (i) create conditions that are toxic or harmful to human, animal, plant, and aquatic life.
> (ii) create conditions that produce undesirable aquatic life; or
> (iii) cause measurable changes in aquatic life."

MDEQ has clarified that all three conditions in (i)-(iii) must be met for activities to be considered nonsignificant.[35]

EPA notes that the text of (i) and (ii) is almost identical to the state's narrative criteria in ARM 17.30.637(1)(d) and (e):

> (1) State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will:
> (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and
> (e) create conditions which produce undesirable aquatic life.

The use of similar language is concerning because the purpose of the narrative criteria above is to protect designated uses, whereas the purpose of Tier 2 antidegradation is to maintain and protect water quality that exceeds the levels necessary to support certain designated uses (the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water) unless the state finds that lowering is necessary to accommodate important economic or social development in the area in which the waters are located. Because the narrative criteria language is similar to the language in (i) and (ii), (i) and (ii) appear to allow use of all assimilative capacity for total phosphorus and total nitrogen without a Tier 2 review to determine if such a lowering is necessary to accommodate important economic or social development in the area of the waters. Therefore, EPA concludes that the provision could allow degradation of high-quality waters up to the threshold determined to be protective of the use. The threshold of "measurable changes in aquatic life" in (iii) is less clear, but there are similarly no constraints in (iii) that would prevent the use of a significant amount of assimilative capacity. Depending on the metric that is being used to assess the effects of nitrogen and phosphorus, a significant lowering

[34] MCA 75-5-303 is Montana's nondegradation policy, which includes the Tier 2 review process.
[35] See May 3, 2021 email from Myla Kelly, DEQ Water Quality Standards Section Supervisor, to Tonya Fish, EPA Region 8 Water Quality Section.

of water quality may occur before a measurable change is detected, especially if it is a metric that is not highly responsive to increasing nutrient concentrations. Given this, EPA concludes that (iii) cannot be relied on to assure that lowering of water quality under this exemption will be insignificant.

EPA does not have any information indicating that limitations exist on the assimilative capacity the discharges addressed in MCA 75-5-317(2)(u) would use on an individual or cumulative basis. In addition, there is no estimate of the percentage of assimilative capacity that would be lost pursuant to this exemption or any associated technical justification that such loss would be insignificant or *de minimis* degradation.[36] Therefore, Section 7 could allow potentially significant lowering of water quality without a Tier 2 review, contrary to the requirement of 40 C.F.R. § 131.12(a)(2).

VI. EPA Action on Section 7 of SB 358, Codified at MCA 75-5-317(2)(u)

Based on the information above, EPA disapproves Section 7 because this *de minimis* provision could allow for the degradation of high-quality waters without the necessary Tier 2 review, as required by 40 C.F.R. § 131.12(a)(2). MDEQ has not adequately justified that the provision would only result in insignificant or *de minimis* degradation.

In this situation, no changes are necessary to address EPA's disapproval of Section 7 because Montana's WQS currently include an EPA approved and CWA effective nondegradation policy and implementation methods. EPA's regulations do not require states to include *de minimis* provisions in their policies or implementation methods. Only EPA-approved WQS may be used for CWA purposes, including in developing effluent limitations for MPDES permits. Therefore, this provision may not be used as the basis for exempting activities from Tier 2 review.

[36] Montana has not established baseline water quality, which is the ambient water quality of the water body at the point when the state starts tracking the use of assimilative capacity.

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MEMORANDUM

SUBJECT: SB 358 Water Quality Standards Review; Rationale for EPA not acting on remaining provisions of SB358

FROM: Judy Bloom, Manager
Clean Water Branch

TO: The File

I. Introduction

EPA has reviewed the legislation adopted by the State of Montana in April 2021 (Senate Bill 358 or SB 358) for consistency with the Clean Water Act (CWA). In reviewing a state or tribe's regulation or statute, EPA considers first whether any provisions constitute a new or revised water quality standard (WQS) that EPA has the CWA section 303(c)(3) authority and duty to approve or disapprove. If it does, EPA must then determine if the provision is consistent with the requirements of the CWA and implementing regulations (i.e., is it approvable).

As discussed in more detail in the action letter,[1] EPA has determined that recent legislative actions in Section 2(1), Section 3, Section 4, and Section 7[2] of SB 358 signed into law on April 30, 2021, include changes that are new or revised water quality standards (WQS) that EPA must either approve or disapprove pursuant to Section 303(c) of the Clean Water Act (CWA). EPA has reviewed those provisions for consistency with the CWA and EPA's implementing regulations and found that they are not consistent with the requirements of the CWA and 40 CFR Part 131. Therefore, EPA is disapproving those provisions pursuant to CWA section 303(c) and Part 131, as detailed in the action letter, and they cannot be used for any CWA purpose.
This Memorandum to File describes EPA's review of whether any provisions of SB 358 not disapproved by EPA are new or revised WQS. Relevant background and a summary of the review are provided below.

[1] See action letter from Darcy O'Connor, EPA Region 8 Water Division Director, to The Honorable Greg Gianforte, Governor of Montana.
[2] EPA addressed the portion of Section 7 codified at MCA 75-5-317(2)(u) in its action letter. Other provisions in Section 7 of SB 358 are addressed below.

II. EPA's Evaluation Whether Any Provisions of SB 358 Not Disapproved by EPA are New or Revised WQS

A. Framework for Determining What is a New or Revised WQS

CWA section 303(c)(2) requires states to submit new or revised WQS to EPA. CWA section 303(c)(3) provides for EPA review of such WQS. EPA's authority and duty to review and approve or disapprove a new or revised WQS is not dependent upon whether the provision was submitted to EPA for review.[3] Therefore, EPA is obligated to analyze SB 358 to determine whether its provisions constitute new or revised WQS which EPA must either approve or disapprove pursuant to Section 303(c) of the Clean Water Act (CWA).

In October 2012, EPA posted a document online, entitled: "*What is a New or Revised Water Quality Standard Under CWA 303(c)(3)? Frequently Asked Questions*" (FAQs).[4] EPA developed the document as an aid to discern when state or authorized tribal provisions constitute new or revised WQS, stating: "To date, EPA has evaluated each situation on a case-by-case basis. These FAQs consolidate EPA's plain language interpretation (informed by the CWA, EPA's implementing regulations at 40 C.F.R. Part 131, and relevant case law) of what constitutes a new or revised water quality standard that the Agency has the CWA Section 303(c)(3) authority and duty to approve or disapprove." The FAQs were, in part, an outgrowth of the Agency's experience in prior cases, and they are currently referenced in EPA's *Water Quality Standards Handbook*.[5]

EPA's FAQs describe a 4-part test: if all four questions below are answered "yes," then the provision would likely constitute a new or revised WQS that EPA has the authority and duty to approve or disapprove under CWA Section 303(c)(3).

1) Is it a legally binding provision adopted or established pursuant to state or tribal law?

2) Does the provision address designated uses, water quality criteria (narrative or numeric) to protect designated uses, and/or antidegradation requirements for waters of the United States?

3) Does the provision express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the United States immediately or mandate how it will be expressed or established for such waters in the future?

4) Does the provision establish a new WQS or revise an existing WQS?

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[3] The U.S. Court of Appeals for the 11th Circuit has held that EPA has a mandatory duty to act on new or revised state WQS, whether or not they are submitted to EPA. *Miccosukee Tribe of Indians of Florida v. EPA,* 105 F.3d 599 (11th Cir. 1997); *FPIRG v. EPA*, 386 F.3d 1070 (11th Cir 2004) (concurring with the reasoning in *Miccosukee*).

[4] *What is a New or Revised Water Quality Standard Under CWA 303(c)(3)? Frequently Asked Questions.* Office of Water, U.S. Environmental Protection Agency. EPA No. 820-F-12-017 (October 2012). www.epa.gov/sites/default/files/2014-11/documents/cwa303faq.pdf.

[5] See www.epa.gov/sites/default/files/2014-10/documents/handbook-chapter1.pdf.

Question 1 is a threshold question of legal applicability that stems from the use of the terms "adopt," "law," "regulations," and "promulgate" in CWA section 303(a)-(c) and EPA's regulations at 40 CFR 131.3(i) which specifies that WQS "are provisions of state or federal law."[6] Question 2 reflects the CWA articulation that WQS include three core components: designated uses, water quality criteria, and antidegradation requirements (see CWA sections 303(c)(2)(A) and 303(d)(4)(B)). Question 3 addresses the substance of the provision and whether it changes one or more of the components of a WQS, such that the provision expresses or establishes a different water quality goal for CWA purposes.[7]

Consistent with its placement as the final question, Question 4 only needs to be evaluated if Questions 1-3 are answered in the affirmative. It clarifies that EPA's authority, as specified in CWA section 303(c)(2)(A), is to act only on new or revised WQS provisions, which includes provisions that have not previously been approved by EPA under section 303(c).[8] EPA's evaluation of whether a provision is new or revised requires a consideration of the effect of the provision on the WQS themselves. For example, if a provision meets the first three considerations but already exists as part of the state or authorized tribe's EPA-approved and CWA-applicable WQS and was only copied over to another section of the regulation for ease of reference, such a re-statement does not have the effect of establishing or changing the applicable WQS. Therefore, the provision is not new or revised, and EPA does not have the authority or duty to take an action under CWA section 303(c).

B. Analysis of Whether Remaining Provisions in SB 358 are New or Revised WQS

EPA analyzed each remaining provision of SB 358, beyond those determined in the action letter to be new and revised WQS, using the 4-part test. EPA's analysis on each provision is described below.

1. Section 1 of SB 358: now codified as MCA 75-5-321 and ARM 17.30.1388

Statutory Language

"Transition for nutrient standards. (1) By March 1, 2022, the department of environmental quality shall adopt rules related to narrative nutrient standards in consultation with the nutrient work group. (2) The rules shall provide for the development of an adaptive management program which provides for an incremental watershed approach for protecting and maintaining water quality, and that: (a) reasonably balances all factors impacting a water body; (b) prioritizes the

[6] 40 CFR 131.3(i): Water quality standards are provisions of State or Federal law which consist of a designated use or uses for the waters of the United States and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Act.

[7] See 40 CFR 131.2: A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria that protect the designated uses.

[8] As stated in EPA's 2012 4-part test FAQs "A provision that EPA has never approved as a WQS would be considered 'new.' It must also meet the other three considerations to be a new or revised WQS." *What is a New or Revised Water Quality Standard Under CWA 303(c)(3)? Frequently Asked Questions.* Office of Water, U.S. Environmental Protection Agency. EPA No. 820-F-12-017 (October 2012). www.epa.gov/sites/default/files/2014-11/documents/cwa303faq.pdf

minimization of phosphorus, taking into account site-specific conditions; and (c) identifies the appropriate response variables affected by nutrients and associated impact thresholds in accordance with the beneficial uses of the waterbody. (3) In developing the rules in subsection (2), the department shall consider options pertaining to whether the point source is new or existing and whether the receiving water body is considered impaired or unimpaired."

4-Part Test Analysis

Question 1. Is it a legally binding provision adopted or established pursuant to state or tribal law?

Yes. Section 1 is legally binding under state law as it is part of the SB 358 legislation passed by the Montana legislature and signed by Governor Gianforte on April 30, 2021. Section 1 of SB 358 is now codified as MCA 75-5-321 and ARM 17.30.1388.

Question 2. Does the provision address designated uses, water quality criteria (narrative or numeric) to protect the designated uses, and/or antidegradation requirements for waters of the United States?

Yes. EPA reviewed this provision and concluded that it satisfies the second question of EPA's 4-part test because it addresses water quality criteria parameters that would be used to protect designated uses for all waterbodies in Montana, including streams, nonwadeable rivers and lakes/reservoirs.

Question 3. Does the provision express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the United States immediately or mandate how it will be expressed or established in such waters in the future?

No. EPA has determined that this provision does not express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the United States immediately or mandate how it will be expressed or established in such waters in the future. Although the provision establishes a framework for MDEQ to use when revising its regulations in the future, this language does not mandate how MDEQ is to establish or express the desired condition. While the rulemaking mandated by this provision may result in the expression or establishment of the desired condition in the future, the current language provides discretion to the state to determine the future desired condition.

Question 4. Does the provision establish a new WQS or revise an existing WQS?

No. EPA's authority and duty to review and approve or disapprove such provisions under CWA section 303(c)(3) are limited to those WQS that are new or revised. As mentioned in Section II.A, Question 4 only needs to be evaluated if Questions 1-3 are answered in the affirmative. However, EPA chose to address Question 4 here for purposes of completeness. While this provision addresses water quality criteria (per Question 2), it does not establish or express the desired condition for Montana waterbodies (per Question 3), thus this provision does not establish a new WQS and does not have the effect of revising an existing WQS. In other words,

this provision cannot be new or revised WQS for which EPA has the authority and duty to act on under CWA section 303(c)(3) as it does not establish or express a desired condition for a waterbody. Therefore, this provision does not meet question 4 of the 4-part test.

Conclusion

As described above, this provision in Section 1 of SB358 does not meet questions 3 and 4 of the 4-part test and therefore is not a new or revised WQS that EPA has the authority and duty to approve or disapprove under CWA 303(c)(3).

2. Section 6 of SB 358, Section 75-5-105

Statutory Language

> MCA is amended to read: …"
>
> Text strikes reference to 75-5-314 in this section, which addresses confidentiality of records.

4-Part Test Analysis

Question 1. Is it a legally binding provision adopted or established pursuant to state or tribal law?

Yes. Section 6 is legally binding under state law as it is part of the SB 358 legislation passed by the Montana legislature and signed by Governor Gianforte on April 30, 2021.

Question 2. Does the provision address designated uses, water quality criteria (narrative or numeric) to protect the designated uses, and/or antidegradation requirements for waters of the United States?

No. EPA reviewed Section 6 of SB358 and concluded that this provision does not address designated uses, narrative or numeric water quality criteria, nor antidegradation requirements. Rather, this provision addresses the confidentiality of records (e.g., trade secrets or other information unique to the owner) related to pollution sources. Therefore, the provision does not satisfy question 2 of the 4-part test.

Question 3. Does the provision express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the United States immediately or mandate how it will be expressed or established in such waters in the future?

No. EPA has determined that this provision does not express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the United States immediately or mandate how it will be expressed or established in such

waters in the future. The provision describes when information related to pollution sources could be considered confidential and not open to public use.

Question 4. Does the provision establish a new WQS or revise an existing WQS?
No. EPA's authority and duty to review and approve or disapprove such provisions under CWA section 303(c)(3) are limited to those WQS that are new or revised. As mentioned in Section II.A, Question 4 only needs to be evaluated if Questions 1-3 are answered in the affirmative. However, EPA chose to address Question 4 here for purposes of completeness. This provision does not address designated uses, criteria or antidegradation (per Question 2) nor does it establish or express the desired condition for Montana waterbodies (per Question 3), thus this provision does not establish a new WQS and does not have the effect of revising an existing WQS. In other words, this provision cannot be a new or revised WQS which EPA has the authority and duty to act on under CWA section 303(c)(3) as it does not address one of the three core components of WQS nor does it establish or express a desired condition for a waterbody. Therefore, this provision does not meet question 4 of the 4-part test.

Conclusion

As described above, this provision in Section 6 of SB358 does not meet questions 2, 3, and 4 of the 4-part test and therefore is not a new or revised WQS that EPA has the authority and duty to approve or disapprove under CWA 303(c)(3).

3. Section 7 of SB 358, Section 75-5-317

Statutory Language

MCA is amended to read: …

~~(u)~~(v) any other activity that is nonsignificant because of its low potential for harm to human health or to the environment and its conformance with the guidance found in 75-5-301(5)(c)
~~(u) any other activity that is nonsignificant because of its low potential for harm to human health or to the environment and its conformance with the guidance found in 75-5-301 (5)(c)."~~

Analysis and Conclusion

EPA has determined that this component of Section 7 is a non-substantive revision because it simply moved the text previously in provision (u) to a new provision (v) in MCA 75-5-317, the section of Montana's antidegradation implementation methods that lists "nonsignificant activities." The text at issue did not change.[9] Rather the state revised the lettering of MCA 75-5-317 to accommodate a new "nonsignificant activity" as provision (u); EPA addressed its disapproval of this new provision in the action letter. While EPA would normally act on non-substantive changes, as described in Question 6 of the 4-part test FAQs, EPA is not acting on this

[9] See the EPA's January 26, 1999 action letter from Jack W. McGraw, Deputy Regional Administrator, to Marc Racicot, The Honorable Governor of Montana. Note the provision was MCA 75-5-317(2)(s) at that time.

non-substantive lettering change.[10] Acting on this lettering change could create confusion as the newly proposed (u) provision, which has led to this lettering change, is being disapproved by EPA.

4. Section 5 of SB 358, Section 75-5-103

Statutory Language

MCA is amended to read:

Text *strikes* the following definitions:

- 2(a) "Base numeric nutrient standards" means numeric water quality criteria for nutrients in surface water that are adopted to protect the designated uses of a surface water body.
- 2(b) The term does not include numeric water quality standards for nitrate, nitrate plus nitrite, or nitrite that are adopted to protect human health.
- (22) "Nutrient standards variance" means numeric water quality criteria for nutrients based on a determination that base numeric nutrient standards cannot be achieved because of economic impacts or because of the limits of technology. The term includes individual, general, and alternative nutrient standards variances in accordance with 75-5-313.

Text *revises* the following definition:

- (23) "Nutrient work group" means an advisory work group, convened by the department, representing publicly owned and privately owned point sources of pollution, nonpoint sources of pollution, and other interested parties that will advise the department on ~~the base numeric~~ nutrient standards, ~~the development of nutrient standards variances, and~~ the implementation of those standards, and ~~variances together with~~ associated economic impacts.

Analysis and Conclusion

Definitions are often inextricably linked to how any WQS that use the corresponding terms will operate in practice. However, these deletions and revisions to definitions relate to provisions that EPA is disapproving, as discussed in the action letter. EPA is not acting at this time on any of the deletions and revisions to the definitions in Section 5 of SB358 but will evaluate whether action on any revised or deleted definition in this section is warranted at the time EPA approves any future WQS provisions that MDEQ adopts.

III. Overall Conclusion

As detailed in the action letter, EPA is acting to disapprove certain provisions in SB 358. Section II of this Memorandum addresses EPA's review of the provisions that EPA did not act on in the action letter to determine which, if any, provisions were new or revised WQS. As a result of the

[10] *What is a New or Revised Water Quality Standard Under CWA 303(c)(3)? Frequently Asked Questions.* Office of Water, U.S. Environmental Protection Agency. EPA No. 820-F-12-017 (October 2012).

review, EPA determined that the provisions in Sections 1, 6 and 7 of SB 358 addressed in this Memorandum are not new or revised WQS because they do not meet all 4 questions in the 4-part test. In addition, as noted above in section II.C, EPA will evaluate whether action on any revisions or deletions of definitions identified in Section 5 of SB 358 is warranted in the context of future action on new or revised WQS to which they may be linked. EPA only has an authority or duty to act, as specified in CWA section 303(c)(2)(A), on new or revised WQS. Thus, based on the rationale described in this Memorandum to File, EPA is not acting on the remaining provisions in SB 358.

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Ref: 8WD-CWB

MEMORANDUM

SUBJECT: Implementation by Montana of its Narrative Water Quality Standard in lieu of the Clean Water Act Applicable Numeric Nutrient Criteria

FROM: Judy Bloom, Manager
Clean Water Branch

TO: The File

I. Introduction

In 2014, Montana adopted water quality standards (WQS) for nutrients for wadeable streams and certain segments of the Yellowstone River. This memorandum documents EPA's review of the state of Montana's implementation of its WQS in the context of Clean Water Act (CWA or Act) National Pollutant Discharge Elimination System (NPDES) permits for facilities that discharge to the waterbodies to which the state's numeric nutrient criteria (NNC) apply. After reviewing the available documentation, EPA concludes that Montana has not adequately implemented the state's water quality standards in a manner that ensures protection of designated uses as required by the CWA and EPA's implementing regulations. Relevant background and a summary of the review is provided below.

II. Statutory and Regulatory Background

Water Quality Standards

The CWA recognizes states[1] as the primary authority to set water quality standards (WQS). CWA sections 303(a)-(c). WQS consist of designated uses for a particular water body or category of water bodies; numeric and/or narrative criteria necessary to protect those uses; and provisions to minimize or prevent degradation of water quality (antidegradation). CWA section 303(c)(2)(A); 40 C.F.R. § 131.6.[2]

States first identify the "designated uses" of each waterbody. CWA section 303(c)(2)(A); 40 C.F.R. § 131.10(a). Designated uses are waterbody goals such as supporting aquatic life and human activities, including recreation and use as a public water supply, that may or may not be currently attained. CWA section 101(a) states that the national goal, wherever attainable, is to provide for the "protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water." The WQS regulations interpret CWA section 101(a)(2) to effectively establish a "rebuttable presumption" that recreational and

[1] CWA section 518(e) specifically authorizes EPA to treat eligible Indian tribes in the same manner as states for purpose of CWA section 303. See also 40 C.F.R. § 131.8.
[2] This memorandum focuses on designated uses and water quality criteria to protect those uses as well as NPDES permitting. The memorandum does not discuss antidegradation in detail.

aquatic life uses are attainable and therefore must be assigned to a water body, unless a state or tribe affirmatively demonstrates, with appropriate documentation, that such uses are not attainable. 40 C.F.R. §§ 131.10(a), (g).

Water quality criteria are "elements of State [WQS], expressed as constituent concentrations, levels or narrative statements, representing a quality of water that supports a particular use." 40 C.F.R. § 131.3(b). States must adopt water quality criteria that protect the designated use, and the criteria "must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use." 40 C.F.R. § 131.11(a).

Water Quality Standard Variances

EPA's WQS regulations authorize states to adopt a WQS variance, where appropriate, to make incremental progress toward attaining the "underlying" designated use and criterion. 40 C.F.R. § 131.14. A WQS variance is a time-limited designated use and criterion for a specific pollutant(s) or water quality parameter(s) that reflect the highest attainable condition during the term of the WQS variance. 40 C.F.R. § 131.3(o). A WQS variance is a WQS subject to EPA review and approval or disapproval. 40 C.F.R. § 131.14.

EPA Review of Water Quality Standards

Any new or revised WQS, including WQS variances, adopted by a state must be submitted to EPA for review to ensure that the requirements of the Act and implementing regulations are met. CWA section 303(c); 40 C.F.R. § 131.20(c). EPA must approve the WQS within 60 days or disapprove the WQS within 90 days. CWA section 303(c); 40 C.F.R. § 131.21(a).

The EPA's authority and duty to review and approve or disapprove a new or revised WQS is not dependent upon whether the provision was submitted to the EPA for review.[3] In October 2012, the EPA posted a document online, entitled: "*What is a New or Revised Water Quality Standard Under CWA 303(c)(3)? Frequently Asked Questions*" (FAQs).[4] The EPA developed the document as an aid to discern when state provisions constitute new or revised WQS, stating: "To date, EPA has evaluated each situation on a case-by-case basis. These FAQs consolidate EPA's plain language interpretation (informed by the CWA, EPA's implementing regulations at 40 C.F.R. Part 131, and relevant case law) of what constitutes a new or revised water quality standard that the Agency has the CWA Section 303(c)(3) authority and duty to approve or disapprove." The FAQs were, in part, an outgrowth of the Agency's experience in prior cases, and they are currently referenced in the EPA's *Water Quality Standards Handbook*. The EPA's FAQs describe a 4-part test: if all four questions below are answered "yes," then the provision would likely constitute a new or revised WQS that the EPA has the authority and duty to approve or disapprove under CWA Section 303(c)(3).

1) Is it a legally binding provision adopted or established pursuant to state or tribal law?

[3] The U.S. Court of Appeals for the 11th Circuit has held that EPA has a mandatory duty to act on new or revised state WQS, whether or not they are submitted to EPA. *Miccosukee Tribe of Indians of Florida v. EPA*, 105 F.3d 599 (11th Cir. 1997) ; *FPIRG v. EPA*, 386 F.3d 1070 (11th Cir. 2004) (concurring with the reasoning in *Miccosukee*).
[4] *What is a New or Revised Water Quality Standard Under CWA 303(c)? Frequently Asked Questions.* Office of Water, U.S. Environmental Protection Agency. EPA No. 820-F-12-017 (October 2012) https://www.epa.gov/sites/default/files/2014-11/documents/cwa303faq.pdf.

2) Does the provision address designated uses, water quality criteria (narrative or numeric) to protect designated uses, and/or antidegradation requirements for waters of the United States?
3) Does the provision express or establish the desired condition (e.g., uses, criteria) or instream level of protection (e.g., antidegradation requirements) for waters of the United States immediately or mandate how it will be expressed or established for such waters in the future?
4) Does the provision establish a new WQS or revise an existing WQS?

If EPA determines that a state's new or revised WQS is not consistent with the applicable requirements of the CWA and implementing regulations, EPA must disapprove the WQS within 90 days and specify the changes needed to meet the applicable requirements. CWA section 303(c)(3); 40 C.F.R. § 131.21. The CWA provides the state another 90 days to adopt revised WQS that meet the CWA requirements. If the state fails to do so, EPA must promptly propose and within 90 days of proposal, must promulgate such standard. CWA section 303(c)(4).

EPA must approve any new or revised WQS adopted by states for those standards to be applicable for CWA purposes (e.g., National Pollutant Discharge Elimination System (NPDES) permitting). 40 C.F.R. § 131.21(c)(2).

NPDES Permitting Program

Under CWA section 301(a) it is unlawful for any person to discharge any pollutant without authorization under CWA section 402, among other enumerated sections of the Act. The NPDES program, which is created by CWA section 402, requires any point source that discharges pollutants into waters of the United States to obtain an NPDES permit prior to discharging such pollutants. CWA section 402; 40 C.F.R. § 122.1(b). EPA may approve qualified state, territorial, or tribal government agencies to administer their own NPDES program. CWA section 402(b); 40 C.F.R. Part 123. If EPA approves a program, the state assumes permitting authority in lieu of EPA. CWA section 402(c); 40 C.F.R. Part 123.

Even after a state is approved to issue permits, EPA maintains authority to review and object to permits that are outside the guidelines and requirements of the Act. CWA section 402(d); 40 C.F.R. § 123.44 If the permitting agency does not satisfactorily address the objection, EPA may issue the permit directly. 40 C.F.R. § 123.44(h).

EPA authorized the state of Montana to implement the NPDES program on June 10, 1974. *See* 39 Fed. Reg. 26061 (July 16, 1974).

NPDES Permit Development

As described in EPA's NPDES Permit Writer's Manual, EPA recommends that all NPDES permits include, at a minimum, five sections: cover page, effluent limitations, monitoring and reporting requirements, special conditions and standard conditions.[5]

In addition to the components of the permit, a fact sheet or statement of basis explaining the rationale for permit conditions makes up part of the documentation that supports a draft permit. 40 C.F.R. §§ 124.8, 124.56.

The first major step in the permit development process is deriving technology-based effluent limitations (TBELs). CWA sections 301(b)(1)(A), (B); 40 C.F.R. § 122.44(a); 40 C.F.R. Part 133. Following that

[5] U.S. Environmental Protection Agency NPDES Permit Writers' Manual at page 3-2 available at https://www.epa.gov/sites/default/files/2015-09/documents/pwm_2010.pdf.

step, the permit writer derives effluent limitations that are protective of applicable water quality standards (i.e., water quality-based effluent limitations [WQBELs]) as needed. CWA section 301(b)(1)(C); 40 C.F.R. § 122.44(d).

The permit writer then includes as final limitations in the NPDES permit both the TBELs and any more stringent WQBELs, after conducting an anti-backsliding analysis if necessary. CWA section 402(o); 40 C.F.R. § 122.44(l); 125.3(a). The permit writer must document the decision-making process for deriving limitations in the permit fact sheet. 40 C.F.R. §§ 124.8, 124.56.

Development of NPDES Permit Water Quality Based Effluent Limitations[6]

When drafting an NPDES permit, a permit writer must consider the impact of the proposed discharge on the quality of the receiving water. Water quality goals for a waterbody are defined by state WQS. By analyzing the effect of a discharge on the receiving water, a permit writer could find that TBELs alone will not achieve the applicable water quality standards. In such cases, the CWA and its implementing regulations require development of WQBELs. WQBELs help meet the CWA objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters and the goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water. WQBELs are designed to protect water quality by ensuring that water quality standards are met in the receiving water. EPA's implementing regulations establish minimum consistent procedures for states and EPA to use in developing WQBELs. 40 C.F.R. § 122.44(d), 54 Fed. Reg. 23867 (June 2, 1989).

WQBELs must control all pollutants or pollutant parameters which the permitting authority determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standards, including state narrative criteria for water quality. 40 C.F.R. § 122.44(d)(1)(i).

When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a state water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water. 40 C.F.R. § 122.44(d)(1)(ii).

When the permitting authority determines, using the procedures in 40 C.F.R. § 122.44 (d)(1)(ii), that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a state numeric criteria within a state water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant. 40 C.F.R. § 122.44 (d)(1)(iii).

Where a state has not established a water quality criterion for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential (RP) to cause, or contributes to an excursion above a narrative criterion within an applicable state water quality standard, the permitting authority must establish effluent limits using one of more of the following options:

(A) Establish effluent limits using a calculated numeric water quality criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and will fully protect the designated use. Such a criterion may be

[6] The detailed discussion of NPDES permitting in this memorandum is limited to water quality based effluent limitations because that is the focus of EPA's review of Montana's NPDES permits in this memorandum.

derived using a proposed state criterion, or an explicit state policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: EPA's October 1983Water Quality Standards Handbook, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current EPA criteria documents; or

(B) Establish effluent limits on a case-by-case basis, using EPA's water quality criteria, published under section 304(a) of the CWA, supplemented where necessary by other relevant information; or

(C) Establish effluent limitations on an indicator parameter for the pollutant of concern, provided:

(1) The permit identifies which pollutants are intended to be controlled by the use of the effluent limitation;

(2) The fact sheet required by 124.56 sets forth the basis for the limit, including a finding that compliance with the effluent limit on the indicator parameter will result in controls on the pollutant of concern which are sufficient to attain and maintain applicable water quality standards;

(3) The permit requires all effluent and ambient monitoring necessary to show that during the term of the permit the limit on the indicator parameter continues to attain and maintain applicable water quality standards; and

(4) The permit contains a reopener clause allowing the permitting authority to modify or revoke and reissue the permit if the limits on the indicator parameter no longer attain and maintain applicable water quality standards.

40 C.F.R. § 122.44(d)(1)(vi).

III. Relevant Factual Background[7]

EPA Approval of Montana's WQS for Nutrients and Associated Litigation

In 2014, Montana adopted WQS for nutrients – total nitrogen (TN) and total phosphorus (TP) for wadeable streams and certain segments of the Yellowstone River – and submitted the package to EPA for action under CWA section 303.[8] The standards include numeric nutrient criteria (NNC), WQS variances, and non-severability provisions.[9] The non-severability provisions tied the WQS criteria with the WQS general variances provisions.[10] If certain triggering events occurred, including EPA disapproval or court invalidation of the WQS variances, the entire package, including the numeric nutrient criteria, would be dissolved.[11] EPA approved the numeric criteria and variances in 2015.[12] EPA did not act on the non-severability provisions in 2015. [13]

[7] Montana's adoption of NNC, accompanying variances and non-severability provisions, EPA's actions on Montana's water quality standards, and associated litigation and legislation have a complex factual and procedural background. Relevant portions of this background are provided here as context for EPA's review of Montana's NPDES permitting record over the past two years but is not a comprehensive review of that background.

[8] February 26, 2015 Letter from Martin Hestmark, Assistant Regional Administrator Office of Ecosystems Protection and Remediation, EPA Region 8 to Tom Livers, Acting Director, MDEQ, and Robin Shropshire, Chairman, Montana Board of Environmental Review, at page 1.

[9] *Id*. at page 1 and accompanying rationale at page 3.

[10] *Id.*

[11] *Id.*

[12] February 26, 2015 Letter from Martin Hestmark, Assistant Regional Administrator Office of Ecosystems Protection and Remediation, EPA Region 8 to Tom Livers, Acting Director, MDEQ, and Robin Shropshire, Chairman, Montana Board of Environmental Review, at page 2.

[13] *Id.* at accompanying rationale page 3.

In 2016, Upper Missouri Waterkeeper (Waterkeeper) challenged EPA's approval of the WQS variances in the U.S. District Court for the District of Montana.[14] Montana later revised its variance in 2017 and EPA approved the revisions for a subset of dischargers.[15] Waterkeeper amended its complaint to challenge EPA's 2017 approval decision.[16] The state of Montana, the National Association of Clean Water Agencies, the Montana League of Cities and Towns, and Treasure State Resources, intervened in the litigation from the outset.[17]

The district court issued multiple orders throughout 2019 regarding its review of EPA's action on Montana's submission.[18] The court remanded the matter to Montana and EPA to act in accordance with its orders and although the court partially vacated the variance, it stayed its vacatur until EPA approved a replacement variance that complied with the court's orders.[19]

Various parties including EPA appealed the district court's orders to the U.S. Court of Appeals for the Ninth Circuit.[20]

Montana submitted a revised variance to EPA in November 2019 to comply with the district court's orders.[21] In February 2020, EPA disapproved Montana's revisions as not complying with the district court's orders although EPA did not agree with the district court's decision with respect to the requirements for the revised variance.[22]

At the same time as issuing its disapproval to respond to the district court's order, EPA approved the non-severability provisions tying the variances to the underlying criteria.[23] In its letter, EPA stated that the Agency was expressing no view at the time as to the specific circumstances, including the disapproval of the revised variance as not complying with the district court order, that would trigger the non-severability provisions.[24] Montana and various stakeholders interpreted EPA's disapproval action as triggering the non-severability provisions, which dissolved the numeric nutrient criteria and variance.[25]

Waterkeeper filed a new case in the district court challenging EPA's 2020 approval of Montana's non-severability provisions. Montana, the Montana League of Cities and Towns and Treasure State Resources Association intervened in this portion of the litigation.[26] The National Association of Clean Water Agencies did not intervene in this portion of the litigation.[27]

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[14] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, No. CV-16-52-GF-BMM (D. Mont.).
[15] October 31, 2017 Letter from Darcy O'Connor, Assistant Regional Administrator Office of Water Protection, EPA Region 8, to Tom Livers, Director, MDEQ.
[16] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, No. CV-16-52-GF-BMM (D. Mont.).
[17] *Id.*
[18] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, 377 F. Supp.3d. 1156 (D. Mont. 2019); July 16, 2019 Order on Remedy; September 20, 2019 Final Order; and December 20, 2019 Order on Motion to Alter or Amend the Judgment.
[19] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, 377 F. Supp.3d. 1156 (D. Mont. 2019); July 16, 2019 Order on Remedy; September 20, 2019 Final Order; and December 20, 2019 Order on Motion to Alter or Amend the Judgment.
[20] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, 15 F.4th 966 (9th Cir. 2021).
[21] February 24, 2020 Letter from Gregory Sopkin, Regional Administrator, EPA Region 8 to Shaun McGrath, MDEQ Director.
[22] *Id.*
[23] *Id.* at pages 10-11.
[24] *Id.*
[25] May 1, 2020 email from Myla Kelly, MDEQ Water Quality Standards and Modeling Manager, to the Montana nutrient workgroup regarding the nutrient workgroup update and meeting.
[26] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, No. 4:20-cv-000027-BMM (D. Mont.).
[27] *Id.*

In summary judgment briefing filed in the challenge to EPA's 2020 approval of Montana's non-severability provisions, EPA addressed the effect of dissolving the numeric nutrient criteria and reverting to the general narrative criterion:

- "Further, Waterkeeper is premature in concluding that Montana's use of the narrative criteria would not result in progress toward water quality that meets designated uses. Where a discharge causes or has the reasonable potential to cause, or contribute to, an excursion above the criteria, appropriate numeric water quality-based effluent limitations restricting the discharge must be included in NPDES permits issued to municipal water treatment plants and other dischargers. See 40 C.F.R. § 122.44(d)(1)(vi). The establishment of such numeric effluent limitations should be informed by the same science that supports the numeric standards, as well as other factors appropriate under the Act. Narrative nutrient criteria have been cited in cases with approval. *See City of Taunton, Mass. v. EPA*, 895 F.3d 120, 133 (1st Cir. 2018); *Upper Blackstone Water Pollution Abatement Dist. v. EPA*, 690 F.3d 9, 15, 18 (1st Cir. 2012)." [28]
- "Finally, it would be premature to predict how the State will implement its narrative criteria in the future. Although the State may have faced implementation challenges regarding its narrative criteria prior to adopting Numeric Criteria, the State now has significant information to translate its narrative criteria into numeric effluent limitations. If subsequent information indicates that the State's narrative criteria are not protective of the designated use, EPA can consider using its authority under 33 U.S.C. § 1313(c)(4)(B) on its own accord or in response to a petition from Waterkeeper to determine whether numeric criteria are necessary at that time."[29]
- "Waterkeeper also argues that Montana's existing narrative nutrient standards will be inadequate, and relies on critiques of Montana's narrative standards prior to issuance of the Numeric Criteria and the variances. Response at 6. However, EPA cannot reasonably assume Montana's implementation of its narrative criteria will prove inadequate given that the State has since developed a much more robust understanding of the science of nutrient pollution and is thereby far-better equipped now than in the past to translate and implement the narrative in NPDES permits."[30]

Montana stated the following in its summary judgment reply brief regarding EPA's approval of the non-severability provisions:

- "…Montana's own recognition, in 2014, that case-by-case implementation of its narrative criterion can be more difficult and generate more controversy, see AR 1203, does not mean beneficial uses cannot be protected through the narrative criteria found at Admin R. Mont. 17.30.637(1)(e). The case-by-case process needed to translate Montana's narrative criteria is supported by federal and state regulations. *See* 40 C.F.R. § 122.44(d)(vi); Admin. R. Mont. 17.30.1344. While the process of implementing the narrative criteria may be more difficult and produce some inconsistencies, Waterkeeper's conclusion that the use of narrative criteria will not protect Montana's beneficial uses is speculative and premature, and ignores the significant nutrient work the state has conducted. The state's collection of research and data would fundamentally inform the state's implementation of its narrative criteria. *See* AR 1203-04. Any

[28] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, No. 4:20-cv-000027-BMM (D. Mont.), Defendants' Memorandum in Opposition to Plaintiff's Motion for Summary Judgment and In Support of Defendants' Cross-Motion for Summary Judgment at page 32 (July 21, 2020).
[29] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency,* No. 4:20-cv-000027-BMM (D. Mont.), Defendants' Reply Memorandum in Support of Defendants' Cross-Motion for Summary Judgment at page 7 (Sept. 9, 2020).
[30] *Id.* at page 15.

> case-by-case application of the narrative criteria, conducted through the permitting process, must protect Montana's beneficial uses. *See* Admin R. Mont. 17.30.1311(1). Nonetheless, Montana's future case-by-case implementation of its narrative criteria is not before the Court, and would itself be subject to governing state law, including all permit review procedures and any related judicial review."[31]

On October 30, 2020, the district court issued an order consolidating the original WQS variance case with the non-severability provision case.[32] [33] The court explicitly disagreed with the position that the non-severability provisions had been triggered and stated that the variance remained in place.[34] The court did not resolve the previously filed summary judgment motions filed regarding EPA's approval of the non-severability provisions.[35]

Under the district court's order, Montana's variance approved by EPA on October 31, 2017, and the state's numeric nutrient criteria approved by EPA on February 26, 2015, remain in effect for CWA purposes.

On October 6, 2021, the U.S. Court of Appeals for the Ninth Circuit issued an opinion upholding EPA's approval of Montana's 2017 water quality standards variance.[36]

On April 4, 2022, the district court issued an order granting Waterkeeper's Motion for Partial Dismissal Without Prejudice for claims in the non-severability provision portion of the litigation.[37]

Montana 2021 Nutrient WQS Legislation

On April 30, 2021, Montana Governor Gianforte signed state legislation (SB 358) regarding the state's nutrient numeric criteria, variance, and non-severability provisions.[38] The legislation directed the Montana Department of Environmental Quality (MDEQ) to:

- Repeal the EPA-approved numeric nutrient criteria, nutrient variance rules, and non-severability provisions;
- Adopt rules to implement Montana's general narrative criteria[39] to address nutrients through an adaptive management program (AMP); and

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[31] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, No. 4:20-cv-000027-BMM (D. Mont.), Reply Memorandum in Support of State of Montana, Department of Environmental Quality's Cross-Motion for Summary Judgment at pages 3-4.
[32] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, No. CV16-52-GF-BMM, CV-20-27-BMM (D. Mont. Oct. 30, 2020).
[33] EPA and other parties appealed the consolidation order to the U.S. Court of Appeals for the Ninth Circuit. The appeals are currently being held under abeyance by the Ninth Circuit until resolution of the variance portion of the litigation. *Upper Missouri Waterkeeper v. EPA*, No. 21-35000 (9th Cir.).
[34] *Id.*
[35] *Id.*
[36] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, 15 F.4th 966 (9th Cir. 2021).
[37] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, No. CV16-52-GF-BMM, CV-20-27-BMM (D. Mont. April 4, 2022).
[38] The legislation also included a new categorical exemption from Tier 2 nondegradation review for proposed activities that discharge phosphorus or nitrogen. Montana uses the term nondegradation rather than antidegradation.
[39] ARM 17.30.637 GENERAL PROHIBITIONS (1) State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will: (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and (e) create conditions which produce undesirable aquatic life.

- Permit nutrient discharges, prior to adoption of final rules, "in a manner consistent with" Montana's general narrative provisions and legislative intent.

Specifically, SB 358 Section 2(1) addresses permitting as follows:

> ***Section 2. Transition for nutrient standards -- department.*** *(1) Until final rules are adopted pursuant to [section 1], the department shall administer the discharge permitting program under 75-5-402 in a manner consistent with ARM 17.30.637 [general narrative standard] and the intent of [this act]. (2) Any nutrient standards variances currently authorized and effective are hereby authorized and effective under 75-5-320 until otherwise amended or repealed.*

On May 24, 2021, Waterkeeper sent EPA a petition requesting the agency perform its alleged mandatory duty to review SB 358 as new or revised WQS and to take action under CWA section 303(c).[40]

In a June 6, 2021, email, Amy Steinmetz, MDEQ Water Quality Division Administrator, clarified Montana's interpretation of SB 358 Section 2(1): "The legislation directs DEQ to use the narrative standard during the transition to the adaptive management rules. Unless we disregard the plain language of the transition section, the NNC are not to be used to establish permit limits."[41]

EPA provided an interim response to the Petition from Waterkeeper on July 20, 2021, indicating that EPA was in the process of reviewing the petition and considering the issues raised by Waterkeeper.[42]

On August 10, 2021, EPA communicated to MDEQ that EPA expects an adequate level of assurance that MDEQ can identify protective levels of both TN and TP for implementation in CWA programs.[43] In an August 18, 2021, letter to MDEQ, EPA reiterated these expectations.[44]

As discussed above, the EPA-approved NNC remain applicable for CWA purposes including NPDES permitting.

IV. EPA Review of Montana's 2020-2022 NPDES Permitting re: Nutrients

Since EPA's approval of Montana's NNC and associated WQS variances in 2015, EPA has reviewed NPDES permits implementing those criteria. Between 2015-2020, permits implementing the NNC and associated WQS variances detailed the state's rationale for concluding whether a discharge had reasonable potential to cause or contribute to an exceedance of the NNC. In May 2020,[45] MDEQ concluded that the NNC were no longer in effect due to the state's view that the non-severability clause had been triggered. Since that time, MDEQ has generally not implemented the NNC as the applicable WQS. Following the district court's October 2020 order the state public noticed numerous permits in

[40] May 24, 2021 Petition for Rulemaking on Water Quality Standards in the State of Montana from Guy Alsentzer, Executive Director, Upper Missouri Waterkeeper to Michael Regan, Administrator, U.S. Environmental Protection Agency.
[41] June 6, 2021 Email from Amy Steinmetz, MDEQ Water Quality Division Administrator, to Bert Garcia, Acting Director Water Division, EPA Region 8.
[42] July 20, 2021 Response by Sara Hisel-McCoy, Director, Standards and Health Protection Division, to Petition for Rulemaking on Water Quality Standards in the State of Montana from Guy Alsentzer. AX-21-000-4056
[43] August 10, 2021 Email from Bert Garcia, Acting Director Water Division, EPA Region 8 to Amy Steinmetz, MDEQ Water Quality Division Administrator.
[44] August 18, 2021 Letter from Andrew Todd, Chief Water Quality Section, EPA Region 8 to Galen Steffens, Water Quality Bureau Chief, MDEQ.
[45] May 1, 2020 email from Myla Kelly, MDEQ Water Quality Standards and Modeling Manager, to the Montana nutrient workgroup regarding the nutrient workgroup update and meeting.

which it identified TN or TP as a pollutant of concern, but for which the state did not conduct an RP analysis using the NNC or include effluent limits for TN or TP based on the NNC. EPA provided written and verbal comments notifying MDEQ that the NNC were still in effect for CWA purposes and that the state was required to utilize the NNC as the basis for WQBELs in relevant permits.[46]

Because the state was implementing only the narrative criteria (not the NNC) in its permits, EPA also evaluated whether MDEQ adequately implemented the narrative criteria consistent with the requirements of 40 C.F.R. § 122.44(d). During the development of its numeric nutrient criteria, MDEQ developed a significant body of nutrient research and data. In the litigation over EPA's approval of the non-severability provisions, the state expressly stated in a 2020 brief that its collection of research and data would fundamentally inform the state's implementation of its narrative criteria if the numeric criteria were to dissolve. In the same litigation, EPA acknowledged that the state had significant information to translate its narrative criteria into numeric effluent limitations and EPA could not then, in 2020, assume that Montana's implementation of its narrative criteria would prove inadequate. In light of these facts, EPA reviewed 19 permits MDEQ developed between 2020 to 2022 for facilities that have nutrients in their effluent and that discharge to waters to which the EPA-approved numeric nutrient criteria apply. EPA considered whether MDEQ relied on the available collection of nutrient research and data to inform its implementation of its narrative criteria in these permits. EPA's review focused on the adequacy of the state's reasonable potential analysis under 40 C.F.R. § 122.44(d)(1)(ii) to determine the need for WQBELs, and the state's establishment of WQBELs based on the narrative WQS pursuant to 40 C.F.R. § 122.44(d)(1)(vi).

40 C.F.R. § 122.44(d)(1)(ii) requires that when determining whether a discharge has the reasonable potential to cause or contribute to an in-stream excursion above a narrative or numeric criteria, states must account for factors such as existing point and nonpoint source pollution controls, variability of the pollutant in the effluent, sensitivity of the species to toxicity testing, and dilution of the effluent in their analysis. EPA's permitting technical support document (TSD) provides additional guidance to states and tribes on how they should use effluent data to determine whether a facility has reasonable potential to cause or contribute to an excursion of a narrative criteria.[47]

40 C.F.R. § 122.44(d)(1)(vi) requires the permitting authority to establish effluent limits when a specific chemical in a discharge has reasonable potential to cause or contribute to an exceedance of a narrative criterion. Such WQBELs can be developed "using a calculated numeric water quality criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and will fully protect the designated use." 40 C.F.R. § 122.44(d)(1)(vi)(A).

Summary of EPA's Review

Between 2020 and 2022, EPA reviewed 19 proposed or issued NPDES permits that have nutrients in their effluent and discharge to waters to which the EPA-approved NNC apply (e.g., wadeable streams). In its review of the permits for these facilities, EPA found that MDEQ did not take a consistent approach in developing these permits and rarely used its available collection of nutrient research and data to inform its permitting decisions. For one permit, MDEQ public noticed the permit without having conducted a reasonable potential analysis and issued the final permit with a reasonable potential analysis provided by EPA. For some permits, MDEQ conducted a reasonable potential analysis that only accounted for the

[46] EPA Comments on City of Havre WWTP draft permit (January 14, 2021), EPA Comments on Hinsdale Water and Sewer District WWTF draft permit (January 14, 2021), EPA Comments on Town of Wibaux WWTF draft permit (January 14, 2021), EPA Comments on Sidney Sugars Inc. draft permit (January 19, 2021), EPA Comments on City of Choteau WRRF (February 15, 2021), EPA Comments on Town of Jordan WWTF (May 4, 2021).
[47] EPA. Technical Support Document for Water-Quality based Toxics-controls. March 1991. Chapter 3.

dilution factor outlined in 40 C.F.R. § 122.44(d)(1)(ii). For other permits, MDEQ offered statements about TMDLs or facility improvements without explaining how they related to a reasonable potential analysis under the § 122.44(d)(1)(ii) factors.

In those instances, in which MDEQ found that a facility's discharge had reasonable potential to contribute to an exceedance of the narrative criteria, it consistently chose to establish effluent limits based on the facility's current performance rather than establish effluent limits that are protective of the designated uses using one or more of the options outlined in 40 C.F.R. § 122.44(d)(1)(vi). Based on this review, EPA concluded that while in several instances MDEQ reached an appropriate permitting result, it has not consistently conducted reasonable potential analyses based on an interpretation of the narrative criteria for nutrient discharges to waters in a manner consistent with EPA regulations and has not established permit limits consistent with EPA regulations that fully protect designated uses. A full discussion of EPA's review follows, with additional detail provided in Table 1.

Discussion of EPA's Review

EPA's review of the 19 permits issued between 2020 and 2022 identified the following categories of permits and permitting decisions.

Four facilities that do not discharge during the summer growing season:

Of the 19 permits EPA reviewed, MDEQ issued 4 to facilities that either naturally do not discharge during the summer growing season (Yellowstone Mountain Club) or can be operated to avoid discharging during the summer growing season (Colstrip, Grass Range, and Wibaux). Because the EPA-approved NNC for these waters only apply during the summer growing season, MDEQ concluded that narrative criteria with respect to nutrients similarly only apply during the summer growing season. Consequently, MDEQ concluded that because the four facilities do not discharge when the narrative criteria apply, they cannot cause an exceedance of the criteria. EPA agrees with this conclusion.

Eight permits that demonstrate no reasonable potential for nutrients:

Of the remaining 15 facilities that discharge during the summer growing season and therefore must fully protect designated uses and attain the narrative criteria for nutrients, MDEQ issued permits for eight (Red Lodge, Glendive, Chinook, Forsyth, Hamilton, Havre, Hinsdale, Lolo) in which it concluded the facilities' discharges did not have the reasonable potential to cause or contribute to an exceedance of the narrative criteria. For two of these facilities (Red Lodge and Glendive), MDEQ conducted reasonable potential analyses that considered both the state's narrative criteria and the NNC and determined there was no reasonable potential for the discharges to cause or contribute to an exceedance of either of the applicable water quality standards. EPA agrees with MDEQ's reasonable potential determinations for these two facilities.

For the other six facilities, MDEQ relied on available dilution in the receiving water as the primary basis for concluding that the discharges did not have reasonable potential. Given the generally cursory nature of MDEQ's dilution analyses for each of these facilities (e.g., did not present dilution calculations or cite to relevant nutrient research to compare to diluted instream levels associated with the effluent discharge), EPA completed its own reasonable potential analysis to independently confirm, using the available collection of nutrient research and data, including the NNC concentrations, that the discharge did not have reasonable potential to cause or contribute to an exceedance of the narrative criteria. Based on its own analysis, EPA agrees with MDEQ's reasonable potential determination for these six facilities.

Two permits with incomplete or flawed reasonable potential analyses:

Of the remaining 7 facilities, MDEQ proposed or issued permits for two facilities (Choteau and Manhattan), for which the reasonable potential analysis was incomplete or flawed. For Choteau, MDEQ did not consider the collection of nutrient research and data and instead cited to the presence of nonpoint source contributions of nutrients identified in a 2003 TMDL and an upgrade of the facility in its reasonable potential analysis. Based on this limited and outdated information, MDEQ concluded that Choteau does not have reasonable potential to cause or contribute to exceedances of the applicable narrative criteria. For Manhattan,[48] MDEQ considered recently proposed (but not yet implemented) upgrades to the facility and the lack of data for the receiving water to conclude the facility did not have reasonable potential to cause or contribute to an exceedance of the narrative criteria. For both facilities, MDEQ concluded that permit limits for TN or TP were not needed and required nutrient monitoring only. Based on its review of these two permits, EPA concludes that MDEQ did not adequately demonstrate that the facilities do not have reasonable potential to cause or contribute to an exceedance of the narrative criteria.

Three permits with effluent limits that do not protect the designated uses:

Of the remaining 5 facilities, MDEQ proposed or issued permits for three facilities (Jordan, Sidney Sugars, and Cut Bank), in which it determined that discharges from the facilities had the reasonable potential to cause or contribute to an exceedance of the narrative criteria, but for which it did not establish effluent limits to protect the designated use. For these three facilities, MDEQ capped the facilities at their current load instead of using the available collection of nutrient research and data and establishing effluent limits using one or more of the approaches required under 40 C.F.R. § 122.44(d)(1)(vi). These effluent limits allow the facility to discharge TN and TP at the same concentrations that MDEQ has already determined cause or contribute to an exceedance of the narrative criteria. Therefore, EPA concludes that the effluent limits for TN and TP for these three facilities do not fully protect the designated uses.

One permit with incomplete or flawed reasonable potential analyses and effluent limits that do not protect the designated use:

Of the remaining 2 facilities, MDEQ issued a draft permit for one facility (Helena) in which it did not conduct a reasonable potential analysis but adopted permit limits for TN and TP from the previous permit for the facility issued in 2012. The previous nutrient permit limits were drawn from a phased TMDL and were not based on the attainment of the narrative criteria or protection of the designated uses.[49] The TMDL itself indicates that the next phase of the TMDL would occur in 2014 with revisions to include waste load allocations and associated effluent limits for TN and TP based on numeric nutrient criteria. Because MDEQ has not used the available collection of nutrient research and data and developed effluent limits using one or more of the approaches under 40 C.F.R. § 122.44(d)(1)(vi), and instead adopted effluent limits based on an outdated TMDL that does not interpret the state's narrative criteria, EPA concludes that the effluent limits for this facility do not fully protect the designated uses.

[48] EPA notes that when it approved the State of Montana's general variance in 2017, Manhattan was identified as having reasonable potential to exceed the NNC and was required to meet the NNC at the end-of-pipe. Additionally, when MDEQ first proposed the Manhattan renewal permit in April 2021, MDEQ determined that Manhattan had reasonable potential to exceed the NNC.

[49] Framework Water Quality Restoration Plan and Total Maximum Daily Loads (TMDLs) for Lake Helena Watershed Planning Area: Volume II – Final Report. Prepared for MDEQ by U.S. EPA. August 31, 2006. Available at: https://deq.mt.gov/files/water/wqpb/CWAIC/TMDL/M09-TMDL-02a.pdf.

One permit with no reasonable potential for nutrients and effluent limits that do not protect the designated use:

MDEQ issued a permit for the remaining facility (Twin Bridges) in which it concluded that the facility had no reasonable potential to cause or contribute to an exceedance of the narrative criteria but for which it nonetheless included permit limits. Twin Bridges is another facility that infrequently discharges and can be operated to avoid discharging during the summer growing season when the narrative criteria apply. For this reason, MDEQ concluded that the facility would not cause or contribute to an exceedance of the narrative criteria. Despite having made this determination, MDEQ nonetheless established TN and TP limits based on past facility performance from 2011 and cited the fact that the facility might need to discharge. As a result, Twin Bridges is authorized to discharge concentrations of TN and TP for which MDEQ has not considered the available collection of nutrient research and data, has not assessed reasonable potential under 40 C.F.R. § 122.44(d)(1)(ii) for these limits, and has not developed effluent limits using one of the methods in 40 C.F.R. § 122.44(d)(1)(vi). EPA therefore concludes that the effluent limits for this facility do not fully protect the designated uses.

Conclusion

After a careful review of 19 proposed or issued NPDES permits between 2020 and 2022, EPA found that MDEQ has not followed a consistent approach to assessing whether water quality-based effluent limitations are required or establishing such limitations in a manner required by EPA regulations, including ensuring that permits fully protect designated uses. MDEQ has previously represented that its collection of research and data would fundamentally inform the state's implementation of its narrative criteria in the absence of numeric criteria. The record before EPA demonstrates the state has rarely used the available nutrient research and data to inform its permitting decisions. In determining whether water quality-based effluent limitations are required, MDEQ's approach to reasonable potential analyses has been inconsistent, in several case relying on a single factor analysis without supporting information, and in other cases pointing to matters unrelated to the factors set forth in regulation. Finally, for the few permits where MDEQ found a reasonable potential that a discharge would cause or contribute to an exceedance of the narrative criteria, those permits included limitations that do not fully protect the designated uses. Thus, the record before EPA regarding the state's implementation of its narrative criteria in its NPDES permits for nutrient dischargers is further evidence that EPA lacks assurances that designated uses would be protected by the state's revision of its water quality standards, as required by 40 C.F.R. § 131.11(a)(1).

TABLE 1 – Additional Details from EPA's Review of MDEQ permits

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
Chinook WWTP (MT0020125)	10/19/2020	"Montana has a narrative water quality standard found at ARM 17.30.637(1)(e). The 2012-permit included average monthly load limits effective June 1 through September 30. These load limits will be retained in this permit. DEQ find that a discharge of TN and TP at these levels will not cause or contribute to exceedance of the narrative water quality standard. Chinook's relatively small volume discharge to the Milk River at these levels will not create that produced undesirable aquatic life." (Permit FS, Page 12)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. Instead, the Permit Fact Sheet (FS) retains the 2012 permit limits, stating that the limits do not cause or contribute to an exceedance of the narrative standard. The FS also cites to the relatively small volume of the discharge compared to the receiving water. EPA's own analysis, based on the NNC, concludes that the discharge does not have reasonable potential to cause or contribute to exceedance of the applicable water quality standard.	Issued 11/25/2020
Choteau WWTP (MT0020052)	1/25/2021	"The 2003 Teton River Water Quality Management Plant and TMDL required reductions in nonpoint source pollution instead of Choteau. As in many watersheds with large agricultural sources of nutrients, focusing on the nonpoint sources are required to create assimilative capacity before limiting point sources like Choteau. However, Choteau has upgraded from a lagoon to a mechanical plant anyway and has worked to reduce nutrient loads since the previous permit." (FS, Page 10)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. Instead, the FS cites to a 2003 TMDL and that the facility upgraded to a mechanical plant. Based on this information, the state determined that the facility has no RP for nutrients and, therefore, does not require permit limits for nutrient-related pollutants. EPA concludes that the state has not a) provided sufficient information or analysis to demonstrate that the permit included limits for all pollutants that have reasonable potential to cause or contribute to an exceedance of the narrative criteria; and therefore, b) whether the state is implementing the narrative criteria in a	Issued 6/30/2021

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
			manner that protects designated uses in its permitting decision.	
Colstrip WWTF (MT0022373)	7/26/2021	"Since the Colstrip STP does not discharge to East Fork Armells Creek during the growing season months when nutrients (TN and TP) would most likely create conditions which produce undesirable aquatic life, or when EPA might apply federal TN and TP numeric standards, there is no RP to exceed the Montana or federal standards. To ensure compliance with the nutrient narrative standard, discharge to East Fork Armells Creek will continue to be limited to November through March." (FS, Page 9)	The RP analysis in the FS is based on the fact that the facility does not discharge during summer months. Because the discharge does not occur during the summer months when the NNC would apply, EPA concludes the discharge does not have the reasonable potential to cause or contribute to exceedance of the applicable water quality standard.	Issued 9/9/2021
Cutbank WWTP (MT0020141)	8/9/2021	"DEQ protects waterbodies from undesirable aquatic life, such as algae, that are stimulated by nutrients. Based on this, the 2012-issued permit included average monthly and average weekly load limits, and average monthly and average weekly concentration limits. Due to the mechanical plant upgrade in 2018, there is a significant nutrient load reduction. Even after upgrading to a mechanical wastewater treatment plant, the lack of ambient streamflow in Old Maids Coulee for parts of the year means Cut Bank WWTP's effluent is the only flow in Old Maids Coulee. Therefore, TN and TP need to be managed to prevent the growth of undesirable aquatic life. Because there is reasonable potential for TN and TP to exceed the narrative water quality standard if Cut Bank WWTP does not manage nutrients, DEQ recalculated the cap at current average monthly nutrient load limits during the growing season, see Appendix A. Because the effluent limits are expressed in terms of load (lb/day), it is redundant to include concentration limits. DEQ determined that a discharge of TN and TP at these levels will not cause or contribute to exceedance of the narrative water quality standard." (FS, Page 13)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. Instead, the state determined that the facility has RP for TN and TP to exceed the narrative criteria based on low flows in the receiving water and existing pollutant controls. Rather than identifying TN or TP levels to interpret the narrative criteria that would ensure protection of designated uses, the state established permit limits based on capping the facility at the current load. This approach allows discharges of TN and TP at concentrations that MDEQ has determined cause or contribute to an exceedance of the narrative water quality standard. Thus, EPA's review demonstrates that MDEQ is not implementing its narrative criteria in a manner that protects designated uses.	Withdrawn

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
Forsyth WWTP (MT0021288)	10/19/2020	"Forsyth discharges a small volume in comparison to the Yellowstone River. Forsyth in cooperation with DEQ has optimized the facility performance by implementing a TN and TP removal plan and is reducing overall loads of TN and TP discharged. DEQ finds Forsyth does not have reasonable potential to cause or contribute to an exceedance of the narrative water quality standard found at 17.30.637(1)(e) which prohibits nuisance aquatic life in state surface waters." (FS, Page 7)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. Instead, MDEQ's FS references potential future facility optimization for TN and TP and states that the facility discharges a small volume compared to the Yellowstone River. EPA's own analysis, based on the NNC, concludes that the discharge will not cause or contribute to exceedance of the narrative water quality standard. This segment of the Yellowstone River is not impaired and there is sufficient assimilative capacity.	Issued 11/30/2020
Glendive WWTP (MT0021628)	3/7/2022	"The dilution ratio during the summer months in the Yellowstone River by Glendive is 1,230. Since the Glendive discharge is so small compared to the flow of the Yellowstone River during the summer, DEQ finds there is no RP for Glendive to cause or contribute to nuisance aquatic life. No effluent limits for TN and TP will be applied to the discharge from the Glendive WRRP during this renewal cycle. However, monitoring requirements for TN and TP will be continued in the renewed permit. Although Montana operates under a narrative standard, the EPA may consider federal standards consisting of a TN of 0.815 mg/L and TP of 0.095 mg/L applicable to the Yellowstone River by Glendive. In case that occurs, DEQ evaluated the Glendive WRRF for RP under the federal TN and TP values… Therefore, RP does not exist to exceed the federal numeric water quality standards for TN [and TP] in the Yellowstone River." (FS, Page 11)	The state's RP analysis is based both on the narrative criteria and the NNC. Based on these two analyses, MDEQ concludes that the discharge will not cause or contribute to exceedance of the narrative criteria. EPA concurs with the state's conclusion the facility does not have RP.	Issued 4/29/2022

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
Grass Range WWTP (MT0030309)	5/17/2021	MDEQ FS: "Grass Range WWTF is located in the Northwestern Great Plans Ecoregion, which has seasonal nutrient standards from July 1st to September 30th. The facility is an infrequent discharger, capable of avoiding discharge events in the summer months when nutrient standards apply. Therefore, Grass Range WWTF will be prohibited from discharging from July 1st to September 30th, annually." (FS, Page 11)	MDEQ's RP determination is based on the fact that the facility does not discharge during summer months; therefore, the facility does not have RP. Because the discharge is not occurring during the summer months when the NNC would apply, EPA concludes the discharge does not have RP to cause or contribute to exceedance the applicable water quality standard.	Issued 7/14/2021
Hamilton WWTP (MT0020028)	6/28/2021	"Montana regulations require state waters be free from substances attributable to municipal discharges that will create conditions which produce undesirable aquatic life. The 2011-permit developed limits of 94 lb/day for TN and 105 lb/day for TP. These load limits will be retained due to anti-backsliding." (FS, Page 13)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. The state did not conduct an RP analysis, but instead applied previous permit limits that were not based on the NNC. The state provided no analysis as to whether the existing permit limits will achieve the narrative criteria. EPA submitted written comments to MDEQ documenting that EPA's RP analysis, based on the NNC, concludes that the discharge will not cause or contribute to exceedance of the applicable water quality standard.	Issued 10/18/2021

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
Havre WWTP (MT0022535)	11/16/2020	"Montana regulations require state waters be free from substances attributable to municipal discharges that will create conditions which produce undesirable aquatic life. Havre invested in significant upgrades, committed to optimization of the wastewater treatment thereby significantly reducing nutrient loads to the Milk River. Below is a comparison of the average summer monthly concentrations and loads before and after significant upgrades were completed in 2016… Recent litigation on nutrients may result in numeric nutrient criteria on the Milk River, but also grant a mixing zone with the 14Q5 flow of the river, which is larger than the 7Q10 flow. Under that scenario, the Milk River sufficiently dilutes Havre's improving discharge to prevent an impairment of the Milk River, but there is a need for instream nutrient monitoring to confirm the impact. Based on currently available information, DEQ finds Havre's effluent does not have reasonable potential to cause or contribute to undesirable aquatic life in the Milk River. Seasonal (June 1 to September 30) effluent and upstream monthly monitoring will be required in the renewed permit." (FS, Page 11)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. Instead, the state's FS references effluent concentrations from before and after the plant was upgraded and relies on that information, combined with the potential for dilution, to determine that the facility does not have RP. EPA's own analysis, based on the NNC, concludes that the discharge will not cause or contribute to exceedance of the applicable water quality standard.	Issued 6/17/2021
Helena WWTP (MT0022641)	7/12/2021	"Previous effluent load limits for total nitrogen (TN) and total phosphorus (TP) were developed in the 2012-issued permit using a phased approach from the EPA-developed and approved TMDL as 'interim adaptive management waste load allocations'…To comply with general prohibitions and narrative standards requiring state waters to be free from substances which will create conditions that produce undesirable aquatic life, such as algae, the average monthly limits will be continued in this permit renewal. Monthly monitoring for N+N and total Kjeldahl nitrogen will be continued as components of total nitrogen." (FS, Page 13)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. The state did not conduct an RP analysis, but instead applied previous permit limits from a phased TMDL for Lake Helena that reflected plant optimization. These limits were to be replaced in 2014 with water quality-based effluent limits derived from numeric nutrient criteria that protect the designated use. EPA's review concluded that MDEQ's RP analysis is poorly justified and the permit provides no analysis as to whether the	Withdrawn

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
			existing permit limits will achieve the narrative criteria. Thus, the state has not provided sufficient information or analysis to determine whether it is implementing water quality standards in a manner that protects the designated use of the receiving water.	
Hinsdale WWTP (MT0020656)	12/14/2020	"Montana regulations require state waters be free from substances attributable to municipal discharges that will create conditions which produce undesirable aquatic life. The Milk River is not listed as impaired for nutrients and ratio of 7Q10 to facility design flow 490:1. DEQ finds no evidence that Hinsdale's discharge is producing undesirable aquatic life. Seasonal (July 1 to September 30) effluent and upstream monthly monitoring will be required in the renewed permit." (FS, Page 12-13)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. Instead, MDEQ cites dilution in the receiving waterbody as the basis for concluding that the facility does not have RP. EPA's own analysis, based on the NNC, concludes that the discharge will not cause or contribute to exceedance of the applicable water quality standard.	Issued 6/8/2021
Jordan WWTP (MT0021385)	3/22/2021	"Jordan has had near-continuous permit violations following the 2008-facility upgrade." (FS, Page 3). "On July 15, 2019, H&S Environmental, LLC conducted a wastewater treatment optimization study for Jordan. Representatives from DEQ and Jordan attended. The evaluation determined that…Ryan's Processing, a local meat processing plant, is overloading the system with untreated influent." (FS, Page 3) "State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will create conditions which produce undesirable aquatic life. This includes TN and TP from Jordan. Because Jordan has RP to violate the narrative standard above, the average monthly WQBEL is determined and then converted to load." (FS, Page 10)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. Instead, the state's FS references frequent permit violations and nutrient overloads to the systems and concludes the facility has RP for TN and TP at the levels currently being discharged because the effluent creates conditions which will produce undesirable aquatic life. However, rather than identifying TN or TP levels to interpret the narrative standard that would ensure protection of designated uses, the state established permit limits based on capping the facility at current performance which reflects nutrient overloading and permit violations.	Issued 6/9/2021

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
			EPA's review concluded that this approach allows discharges of TN and TP at concentrations that MDEQ has determined cause or contribute to an exceedance of the narrative water quality standard. Thus, MDEQ is not implementing its narrative criteria in a manner that protects designated uses.	
Lolo WWTP (MT0020168)	11/15/2021	"The Bitterroot River flows into the Clark Fork River just below the Lolo WWTP. Numeric water quality standards for TN and TP have been adopted for the mainstem Clark Fork River from the confluence with the Blackfoot River to the confluence with the Flathead River. The numeric water quality standards for TN and TP for the Clark Fork River in this reach are 300 µg/L and 39 µg/L, respectively, both effective from June 21 to September 21. Although no numeric water quality standards for TN and TP presently exist for the Bitterroot River, DEQ will determine RP using the Clark Fork River standards because of the close downstream proximity to the Lolo WWTP." (FS Page 10) RP analysis completed based on Clark Fork River analysis concluded: "Therefore, RP does not exist to exceed the numeric water quality standards for TN in the Bitterroot." (FS, Page 11)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria. Instead, the FS states that there are no NNC for the Bitterroot River and the state's RP analysis is based on the downstream NNC for the Clark Fork River. EPA's own RP analysis, based on the NNC for the Bitterroot River (the receiving waterbody), demonstrates that the discharge will not cause or contribute to exceedance of the applicable water quality standard.	Issued 1/31/2022

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
Manhattan WWTP (MT0021857)	6/28/2021	"DEQ finds Manhattan is reducing nutrient loading by continuing to propose upgrades to the facility. For this renewal DEQ has determined that there is not sufficient information to determine whether there is narrative reasonable potential to cause or contribute to a nutrient problem for the following reasons: 1. the ambient condition for Dita Ditch is not adequately characterized. There is no seasonal ambient flow data, the current nutrient concentrations are not known, and there is no downstream evaluation for nutrient impairment or evidence of nuisance aquatic life. 2. the 2020 PER submitted to DEQ for numerous facility upgrades includes developing the old lagoons into groundwater infiltration basins that may negate the need to discharge to surface water during the summer season. For these reasons, DEQ will require additional monitoring during this permit cycle to provide data for future evaluation, including effluent concentration and load and ambient data for Dita Ditch." (FS, Page 16)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. The state public noticed a draft permit in April 2021 in which it determined that the facility had RP for the NNC based on stream flow and elevated TN and TP concentrations in the discharge. In June 2021, with the same information available, the state re-public noticed a revised draft permit in which it determined that they had insufficient information to determine RP for the narrative criteria for TN and TP. As a result, the state required only monitoring for TN and TP in the revised draft permit. The state did not provide any information or analysis to explain why its interpretation of the narrative criteria would protect designated uses when the discharge concentrations had not changed since the previous draft permit in which the state had demonstrated the facility had RP for the NNC that protected the same designated use. EPA's review concluded that MDEQ's RP analysis is poorly justified. Thus, the state has not provided sufficient information or analysis to determine whether it is implementing water quality standards in a manner that protects designated uses.	Withdrawn

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
Red Lodge WWTP (MT0020478)	2/7/2022	"Since the Red Lodge discharge is so small compared to the flow of Rock Creek during the summer, DEQ finds there is no RP for Red Lodge to cause or contribute to nuisance aquatic life. No effluent limits for TN and TP will be applied to the discharge from the Red Lodge WWTP during this renewal cycle. However, monitoring requirements for TN and TP will be continued in the renewed permit. Although Montana operates under a narrative standard, the EPA may consider federal standards consisting of a TN of 1.3 mg/L and TP of 0.15 mg/L applicable to Rock Creek. In case that occurs, DEQ evaluated Red Lodge for RP under the federal TN and TP values… Therefore, RP does not exist to exceed the federal numeric water quality standards for TN [and TP] in Rock Creek" (FS, Page 11)	The state's RP analysis is based both on the narrative criteria and the NNC. Based on these two analyses, MDEQ concludes that the discharge will not cause or contribute to exceedance of the narrative criteria. EPA concurs with the state's conclusion the facility does not have RP.	Issued 3/15/2022
Sidney Sugars (MT0000248)	11/30/2020	"Sidney Sugars effluent cannot contain enough nutrients to cause undesirable aquatic life in the Yellowstone River. There are currently no numeric water quality standards for TN or TP, although there are surface water standards for ammonia and N+N. However, recent litigation may result in a nutrient criterion of 0.815 mg/L TN and 0.095 mg/L TP." (FS, Page 35) "There is no need for mixing zone dilution for TN or TP as there are no numeric nutrient standards."(FS, Page 37) "Regardless of ongoing litigation on the status of numeric nutrient criteria versus narrative, the Yellowstone River is impaired for TN and TP and there is no assimilative capacity. DEQ will cap the facility at current performance until new information becomes available. DEQ has determined that TN and TP are best permitted as a seasonal monthly average load (lb/day) from August 1st - October 31st." Same language for TP (FS, Pages 44-45)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. Instead, the state determined that the facility has RP for TN and TP to exceed the narrative criteria based on a percent contribution of the total nutrient load to the Yellowstone River which has no assimilative capacity because this segment of the river is impaired for TN and TP. Rather than identify TN or TP levels based on the underlying science to interpret the narrative standard that would protect designated uses, the state established permit limits based on capping the facility at current performance. EPA's review concluded that this approach allows discharges of TN and TP at	Issued 8/31/2021

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
		"Based on the loads from SSI [Sidney Sugars Inc.] compared to the load in the Yellowstone River, DEQ finds there is reasonable potential for SSI to contribute sufficient total nitrogen and total phosphorus, for causing or contributing to (d) creating concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and (e) creating conditions which produce undesirable aquatic life. [ARM 17.30.637(1)(d) and (e)]." (RTC, Page 2)	concentrations that MDEQ has determined cause or contribute to an exceedance of the narrative water quality standard. Thus, MDEQ is not implementing its narrative criteria in a manner that protects designated uses.	
Twin Bridges WWTP (MT0028797)	7/27/2020	"Twin Bridges land applies effluent and has not discharged since April 2012 or roughly 8 years. Since the facility does not discharge pollutants during normal operations thereby reducing pollutants at the best available technology or limits of technology, DEQ concludes Twin Bridges does not have reasonable potential to exceed the narrative water quality standard found at ARM 17.30.637(1). However, to maintain optimal performance and predictability for land application and crop nutrient uptake, DEQ maintains previous nutrient limits." (FS, Page 9) "DEQ acknowledges the MPDES permit authorizes Twin Bridges to discharge even though the facility is designed for total retention and land application of effluent during the summer months. Twin Bridges continues to hold the MPDES in the unlikely event total retention and/or land application is infeasible for short periods of time." (RTC, Page 2)	MDEQ did not use its collection of nutrient research and data to interpret the narrative criteria in its reasonable potential analysis. Instead, the state assessed RP for the narrative criteria based on a no-discharge scenario. The state concluded that the facility has no RP under these conditions. However, rather than establishing a mandatory no-discharge limit, the state kept prior TN and TP limits, which were based on facility performance from the 2011 timeframe when a discharge last occurred. EPA concludes that the state has not demonstrated that these limits the narrative criteria and are protective of designated uses.	Issued 10/15/2020
Wibaux WWTP (MT0020516)	12/14/2020	"The 2012-permit did not include average effluent limits for Total Nitrogen (TN) or Total Phosphorus (TP), but did require effluent and in-stream monitoring. Montana has a narrative water quality standard found at ARM 17.30.637(1)(e). For the POR, Wibaux did not discharge during summer months. Because of the infrequent discharge from the WWTF (usually once per year in the fall), there is not a significant load of TN or TP from	The state's RP analysis relies on the fact that Wibaux did not discharge in the summer months. In its comments on the draft permit, EPA recommended MDEQ prohibit discharge from July – September. MDEQ made this change to the final permit. (RTC, Page 2)	Issued 2/22/2021

Facility	Original MDEQ Public Notice Date	Description of Permit Details including RP Analysis in Permit Fact Sheet	EPA Review	Final Permit Status
		Wibaux during the nutrient growing season. DEQ concludes discharge will not produce undesirable aquatic life." (FS, Page 12)	Because MDEQ modified the final permit to prohibit discharging during the summer months, EPA concludes the discharge does not have RP to cause or contribute to exceedance of the narrative water quality standard.	
Yellowstone Mtn Club WWTP (MT0032051)	4/4/2021	"The discharge of snowmelt from the artificial snow will occur during the spring snowmelt/runoff period. The permit application states that on Eglise Mountain snowmelt generally begins about mid-April and all snow is historically melted by July 1st each year. DEQ Circular 12A includes numeric nutrient criteria for both Total Nitrogen and Total Phosphorus. These numeric water quality standards are applicable July 1st through September 30th annually. Yellowstone Club plans to make and apply snow during the winter months with all snow reported to melted by July 1st each year. DEQ finds the snowmelt will not discharge during the months that the numeric nutrient criteria apply and therefore the snowmelt does not have reasonable potential to cause or contribute to an exceedance of either the TN or TP numeric water quality standard." (FS, Page 20)	The state's RP analysis relies on the fact that the Yellowstone Mountain club discharge will not discharge in the summer months. This permit relates to using wastewater discharge for snowmaking during winter months. Because the discharge is not occurring during the summer months when the NNC would apply, EPA concludes the discharge does not have RP to cause or contribute to exceedance of the narrative criteria.	Issued 6/7/2021

EXHIBIT E - DEQ's Submission of HB664 & Elimination of NNC to EPA

DEQ
Montana Department
of Environmental Quality

May 6, 2025

Cyrus M. Western
Regional Administrator
US Environmental Protection Agency
Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

RE: Montana HB 664: Nutrient Water Quality Standard Revisions

Dear Regional Administrator Western:

On May 1, 2025, Montana Governor Greg Gianforte signed House Bill 664 into law, an act revising the nutrient criteria for Montana's water quality standards, as passed by the state's 69th Legislature. House Bill 664 directs DEQ to repeal Montana's EPA-approved numeric nutrient criteria found in Department Circular DEQ-12A ("DEQ-12A") and contains an immediate effective date. In addition, the bill directly repeals Section 75-5-321, Montana Code Annotated, and Administrative Rule of Montana (ARM) Sections 17.30.660 and 17.30.1388.

Further, the bill directs DEQ to do the following:

1. Amend specific department rules to remove all references to DEQ-12A, base numeric nutrient standards, and nutrient standards variances.
2. Repeal DEQ-12A as adopted into ARM on August 8, 2014.
3. Amend all guidance, assessment methods, total maximum daily load calculations, and other policies and procedures to eliminate reference to or reliance upon DEQ-12A.

DEQ submits this legislative act (bill text attached), which contains revised water quality standards, to initiate EPA's review under Section 303(c) of the Clean Water Act (CWA), 33 U.S.C. § 1313(c). The department intends to utilize the existing, established narrative standard at ARM 17.30.637(1)(e) for CWA Section 303(d) nutrient water quality assessments, the development of total maximum daily loads, and Montana Pollutant Discharge Elimination System permits. DEQ will implement the narrative standard using best available science. Prior to the adoption of DEQ-12A in 2014, DEQ utilized the narrative standard and best available science for all CWA program actions related to nutrients. Despite the adoption of DEQ-12A for a subset of Montana's surface waters, Montana's narrative standard had previously been approved by EPA and remained in effect for all state surface waters. In fact, many Montana waters have never been subject to the numeric nutrient criteria in DEQ-12A.

As EPA is aware, it previously approved a potential return to the exclusive use of Montana's narrative nutrient standard and a corresponding repeal of DEQ-12A. *See* February 24, 2020, EPA Letter Re: EPA Action in Response to Court Order in *Upper Missouri Waterkeeper v. EPA* (D. Mont.

No. 4:16-cv-00052-BMMM). Montana's non-severability provisions contemplated a contingent return to narrative standards and were adopted at the same time DEQ-12A became law. *See* ARM 17.30.619(2) and ARM 17.30.715(5). These provisions were adopted because without feasible regulatory options, the stringent numeric nutrient criteria contained in DEQ-12A would cause substantial and widespread economic and social harm across Montana. EPA previously understood DEQ-12A was not designed to function independently of a statewide general variance. EPA has also acknowledged that narrative standards are authorized by the Clean Water Act and relied upon by most states to address nutrient pollution.

To meet legislative directives, DEQ intends to proceed with all required rulemaking efforts and undertake amendments to its nutrient assessment methodology and related policies and procedures.

Please do not hesitate to reach out with any questions.

Sincerely,

Sonja Nowakowski, Director

Enc.: Certification letter, HB664 text

CC: Stephanie DeJong, Clean Water Branch Manager, Region 8 EPA, DeJong.Stephanie@epa.gov

DEQ
Montana Department of Environmental Quality

May 6, 2025

Cyrus M. Western
Regional Administrator
U.S. Environmental Protection Agency
Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Re: Certification of Revisions to Montana's Water Quality Standards – House Bill 664 (2025).

Dear Regional Administrator Western:

On May 1, 2025, Montana Governor Greg Gianforte signed House Bill 664 (2025) into law, an act revising the nutrient criteria for Montana's water quality standards and as passed by the state's 69th Legislature. Among other things, House Bill 664 directs DEQ to repeal Montana's EPA-approved numeric nutrient criteria found in Circular DEQ-12A and contains an immediate effective date.

As Chief Legal Counsel of the Department of Environmental Quality, and as an attorney designated by the Montana Attorney General to make representations on behalf of the state for federal environmental programs, I hereby certify that the Montana Legislature duly adopted House Bill 664 and the same was signed by Governor Greg Gianforte. In Montana, legislative acts are presumed valid. *Citizens for a Better Flathead v. Bd. of Cnty. Comm'rs,* 2016 MT 325, ¶ 15, 385 Mont. 505, 386 P.3d 567.

Sincerely,

/s/Samuel J. King

Samuel King
Chief Legal Counsel

cc: Andy Ulven, Chief, DEQ Water Quality Planning Bureau
File

AN ACT REVISING THE NUTRIENT CRITERIA FOR MONTANA WATER QUALITY STANDARDS; REMOVING REFERENCES TO NUMERIC NUTRIENT STANDARDS IN ADMINISTRATIVE RULE; REPEALING BASE NUMERIC NUTRIENT STANDARDS; PROVIDING DIRECTIONS TO THE DEPARTMENT OF ENVIRONMENTAL QUALITY; PROVIDING RULEMAKING AUTHORITY; ELIMINATING THE NUTRIENT WORK GROUP; AMENDING SECTION 75-5-103, MCA; REPEALING SECTION 75-5-321, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.

WHEREAS, the objective of the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters"; and

WHEREAS, the Environmental Protection Agency (EPA) authorized the Montana Department of Environmental Quality (DEQ) to regulate most water quality programs in the state; and

WHEREAS, beginning in 1998, the EPA "strongly encouraged" numeric nutrient standards, which the DEQ adopted in 2015; and

WHEREAS, from 2011 through 2014, members of the Nutrient Work Group and the public endeavored to develop rules to govern numeric nutrient criteria, rules, and guidance. The work involved interactions between the DEQ and EPA on the proposed rules, variances, and guidance and led to the adoption of rule packages by the Board of Environmental Review. Even though the EPA had clarity on the proposals before they were finalized and had indicated its support for Montana's approach, the agency adopted a rule that made it impossible for Montana's rules and variances from working as intended. The EPA never approved a general variance for private sector dischargers; and

WHEREAS, these numeric nutrient standards were not explicitly required by law, and many states have not adopted numeric nutrient standards for all of their bodies of water; and

WHEREAS, the 2021 Montana Legislature, recognizing this, chose to re-establish narrative nutrient standards in Senate Bill 358; and

WHEREAS, the Nutrient Work Group, which included participants from the DEQ and EPA, worked diligently to assess the viability of a general variance to allow compliance with numeric standards and to develop narrative standards without widespread economic consequences, but to no avail; and

WHEREAS, the failure to adopt narrative nutrient standards means that Montana again operates under the old, unattainable numeric nutrient standards; and

WHEREAS, Montana's numeric nutrient standards and variances provided for in law and in ARM 17.30.507, 17.30.516, 17.30.602, 17.30.619, 17.30.622, 17.30.623, 17.30.624, 17.30.625, 17.30.626, 17.30.627, 17.30.628, 17.30.629, 17.30.660, 17.30.702, 17.30.715, and 17.30.1388 have subsequently proven to be unachievable and burdensome, especially for Montana's municipal wastewater treatment systems.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

Section 1. Department to amend rules. The department shall amend ARM 17.30.507, 17.30.516, 17.30.602, 17.30.619, 17.30.622, 17.30.623, 17.30.624, 17.30.625, 17.30.626, 17.30.627, 17.30.628, 17.30.629, 17.30.702, and 17.30.715 to delete all references to department circular DEQ-12A, base numeric nutrient standards, and nutrient standards variances.

Section 2. Directions to department. The department shall:

(1) repeal department circular DEQ-12A Montana base numeric nutrient standards as adopted into administrative rule on August 8, 2014; and

(2) amend all guidance, assessment methods, total maximum daily load calculations, and other policies and procedures to eliminate reference to or reliance on department circular DEQ-12A.

Section 3. Section 75-5-103, MCA, is amended to read:

"**75-5-103. (Temporary) Definitions.** Unless the context requires otherwise, in this chapter the following definitions apply:

(1) "Associated supporting infrastructure" means:

(a) electric transmission and distribution facilities;

(b) pipeline facilities;

(c) aboveground ponds and reservoirs and underground storage reservoirs;

(d) rail transportation;

(e) aqueducts and diversion dams;

(f) devices or equipment associated with the delivery of an energy form or product produced at an energy development project; or

(g) other supporting infrastructure, as defined by department rule, that is necessary for an energy development project.

(2) "Board" means the board of environmental review provided for in 2-15-3502.

(3) "Contamination" means impairment of the quality of state waters by sewage, industrial wastes, or other wastes, creating a hazard to human health.

(4) "Council" means the water pollution control advisory council provided for in 2-15-2107.

(5) (a) "Currently available data" means data that is readily available to the department at the time a decision is made, including information supporting its previous lists of water bodies that are threatened or impaired.

(b) The term does not mean new data to be obtained as a result of department efforts.

(6) "Degradation" means a change in water quality that lowers the quality of high-quality waters for a parameter. The term does not include those changes in water quality determined to be nonsignificant pursuant to 75-5-301(5)(c).

(7) "Department" means the department of environmental quality provided for in 2-15-3501.

(8) "Disposal system" means a system for disposing of sewage, industrial, or other wastes and includes sewage systems and treatment works.

(9) "Effluent standard" means a restriction or prohibition on quantities, rates, and concentrations of chemical, physical, biological, and other constituents that are discharged into state waters.

(10) "Energy development project" means each plant, unit, or other development and associated developments, including any associated supporting infrastructure, designed for or capable of:

(a) generating electricity;

(b) producing gas derived from coal;

(c) producing liquid hydrocarbon products;

(d) refining crude oil or natural gas;

(e) producing alcohol to be blended for ethanol-blended gasoline and that are eligible for a tax incentive pursuant to Title 15, chapter 70, part 5; or

(f) transmitting electricity through an electric transmission line with a design capacity of equal to or greater than 50 kilovolts.

(11) "Existing uses" means those uses actually attained in state waters on or after July 1, 1971, whether or not those uses are included in the water quality standards.

(12) "High-quality waters" means all state waters, except:

(a) ground water classified as of January 1, 1995, within the "III" or "IV" classifications established by the department's classification rules; and

(b) surface waters that:

(i) are not capable of supporting any one of the designated uses for their classification; or

(ii) have zero flow or surface expression for more than 270 days during most years.

(13) "Impaired water body" means a water body or stream segment for which sufficient credible data shows that the water body or stream segment is failing to achieve compliance with applicable water quality standards.

(14) "Industrial waste" means a waste substance from the process of business or industry or from the development of any natural resource, together with any sewage that may be present.

(15) "Interested person" means a person who has a real property interest, a water right, or an economic interest that is or may be directly and adversely affected by the department's preliminary decision regarding degradation of state waters, pursuant to 75-5-303. The term includes a person who has requested authorization to degrade high-quality waters.

(16) "Load allocation" means the portion of a receiving water's loading capacity that is allocated to one of its existing or future nonpoint sources or to natural background sources.

(17) "Loading capacity" means the mass of a pollutant that a water body can assimilate without a violation of water quality standards. For pollutants that cannot be measured in terms of mass, it means the maximum change that can occur from the best practicable condition in a surface water without causing a

violation of the surface water quality standards.

(18) "Local department of health" means the staff, including health officers, employed by a county, city, city-county, or district board of health.

(19) "Metal parameters" includes but is not limited to aluminum, antimony, arsenic, beryllium, barium, cadmium, chromium, copper, fluoride, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc.

(20) "Mixing zone" means an area established in a permit or final decision on nondegradation issued by the department where water quality standards may be exceeded, subject to conditions that are imposed by the department and that are consistent with the rules adopted by the department.

~~(21) "Nutrient work group" means an advisory work group, convened by the department, representing publicly owned and privately owned point sources of pollution, nonpoint sources of pollution, and other interested parties that will advise the department on nutrient standards, the implementation of those standards, and associated economic impacts.~~

~~(22)~~(21)"Other wastes" means garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, sand, ashes, offal, night soil, oil, grease, tar, heat, chemicals, dead animals, sediment, wrecked or discarded equipment, radioactive materials, solid waste, and all other substances that may pollute state waters.

~~(23)~~(22)"Outstanding resource waters" means:

(a) state surface waters located wholly within the boundaries of areas designated as national parks or national wilderness areas as of October 1, 1995; or

(b) other surface waters or ground waters classified by the department under the provisions of 75-5-316 and approved by the legislature.

~~(24)~~(23)"Owner or operator" means a person who owns, leases, operates, controls, or supervises a point source.

~~(25)~~(24)"Parameter" means a physical, biological, or chemical property of state water when a value of that property affects the quality of the state water.

~~(26)~~(25)"Person" means the state, a political subdivision of the state, institution, firm, corporation, partnership, individual, or other entity and includes persons resident in Canada.

~~(27)~~(26)"Point source" means a discernible, confined, and discrete conveyance, including but not

limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, or vessel or other floating craft, from which pollutants are or may be discharged.

~~(28)~~(27)(a) "Pollution" means:

(i) contamination or other alteration of the physical, chemical, or biological properties of state waters that exceeds that permitted by Montana water quality standards, including but not limited to standards relating to change in temperature, taste, color, turbidity, or odor; or

(ii) the discharge, seepage, drainage, infiltration, or flow of liquid, gaseous, solid, radioactive, or other substance into state water that will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, or welfare, to livestock, or to wild animals, birds, fish, or other wildlife.

(b) The term does not include:

(i) a discharge, seepage, drainage, infiltration, or flow that is authorized under the pollution discharge permit rules adopted by the department under this chapter;

(ii) activities conducted under this chapter that comply with the conditions imposed by the department in short-term authorizations pursuant to 75-5-308;

(iii) contamination of ground water within the boundaries of an underground mine using in situ coal gasification and operating in accordance with a permit issued under 82-4-221.

(c) Contamination referred to in ~~subsections (28)(b)(iii) and (28)(b)(iv)~~ subsection (27)(b)(iii) does not require a mixing zone.

~~(29)~~(28)"Sewage" means water-carried waste products from residences, public buildings, institutions, or other buildings, including discharge from human beings or animals, together with ground water infiltration and surface water present.

~~(30)~~(29)"Sewage system" means a device for collecting or conducting sewage, industrial wastes, or other wastes to an ultimate disposal point.

~~(31)~~(30)"Standard of performance" means a standard adopted by the department for the control of the discharge of pollutants that reflects the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, when practicable, a standard permitting no discharge of pollutants.

~~(32)~~(31)(a) "State waters" means a body of water, irrigation system, or drainage system, either surface or underground.

(b) The term does not apply to:

(i) ponds or lagoons used solely for treating, transporting, or impounding pollutants; or

(ii) irrigation waters or land application disposal waters when the waters are used up within the irrigation or land application disposal system and the waters are not returned to state waters.

~~(33)~~(32)"Sufficient credible data" means chemical, physical, or biological monitoring data, alone or in combination with narrative information, that supports a finding as to whether a water body is achieving compliance with applicable water quality standards.

~~(34)~~(33)"Threatened water body" means a water body or stream segment for which sufficient credible data and calculated increases in loads show that the water body or stream segment is fully supporting its designated uses but threatened for a particular designated use because of:

(a) proposed sources that are not subject to pollution prevention or control actions required by a discharge permit, the nondegradation provisions, or reasonable land, soil, and water conservation practices; or

(b) documented adverse pollution trends.

~~(35)~~(34)"Total maximum daily load" or "TMDL" means the sum of the individual waste load allocations for point sources and load allocations for both nonpoint sources and natural background sources established at a level necessary to achieve compliance with applicable surface water quality standards.

~~(36)~~(35)"Treatment works" means works, including sewage lagoons, installed for treating or holding sewage, industrial wastes, or other wastes.

~~(37)~~(36)"Waste load allocation" means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources.

~~(38)~~(37)"Water quality protection practices" means those activities, prohibitions, maintenance procedures, or other management practices applied to point and nonpoint sources designed to protect, maintain, and improve the quality of state waters. Water quality protection practices include but are not limited to treatment requirements, standards of performance, effluent standards, and operating procedures and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from material storage.

~~(39)~~(38)"Water well" means an excavation that is drilled, cored, bored, washed, driven, dug, jetted, or

otherwise constructed and intended for the location, diversion, artificial recharge, or acquisition of ground water.

~~(40)~~(39)"Watershed advisory group" means a group of individuals who wish to participate in an advisory capacity in revising and reprioritizing the list of water bodies developed under 75-5-702 and in the development of TMDLs under 75-5-703, including those groups or individuals requested by the department to participate in an advisory capacity as provided in 75-5-704.

75-5-103. (Effective on occurrence of contingency) Definitions. Unless the context requires otherwise, in this chapter the following definitions apply:

(1) "Associated supporting infrastructure" means:

(a) electric transmission and distribution facilities;

(b) pipeline facilities;

(c) aboveground ponds and reservoirs and underground storage reservoirs;

(d) rail transportation;

(e) aqueducts and diversion dams;

(f) devices or equipment associated with the delivery of an energy form or product produced at an energy development project; or

(g) other supporting infrastructure, as defined by department rule, that is necessary for an energy development project.

(2) "Board" means the board of environmental review provided for in 2-15-3502.

(3) "Contamination" means impairment of the quality of state waters by sewage, industrial wastes, or other wastes, creating a hazard to human health.

(4) "Council" means the water pollution control advisory council provided for in 2-15-2107.

(5) (a) "Currently available data" means data that is readily available to the department at the time a decision is made, including information supporting its previous lists of water bodies that are threatened or impaired.

(b) The term does not mean new data to be obtained as a result of department efforts.

(6) "Degradation" means a change in water quality that lowers the quality of high-quality waters for a parameter. The term does not include those changes in water quality determined to be nonsignificant pursuant to 75-5-301(5)(c).

(7) "Department" means the department of environmental quality provided for in 2-15-3501.

(8) "Disposal system" means a system for disposing of sewage, industrial, or other wastes and includes sewage systems and treatment works.

(9) "Effluent standard" means a restriction or prohibition on quantities, rates, and concentrations of chemical, physical, biological, and other constituents that are discharged into state waters.

(10) "Energy development project" means each plant, unit, or other development and associated developments, including any associated supporting infrastructure, designed for or capable of:

(a) generating electricity;

(b) producing gas derived from coal;

(c) producing liquid hydrocarbon products;

(d) refining crude oil or natural gas;

(e) producing alcohol to be blended for ethanol-blended gasoline and that are eligible for a tax incentive pursuant to Title 15, chapter 70, part 5; or

(f) transmitting electricity through an electric transmission line with a design capacity of equal to or greater than 50 kilovolts.

(11) "Existing uses" means those uses actually attained in state waters on or after July 1, 1971, whether or not those uses are included in the water quality standards.

(12) "High-quality waters" means all state waters, except:

(a) ground water classified as of January 1, 1995, within the "III" or "IV" classifications established by the department's classification rules; and

(b) surface waters that:

(i) are not capable of supporting any one of the designated uses for their classification; or

(ii) have zero flow or surface expression for more than 270 days during most years.

(13) "Impaired water body" means a water body or stream segment for which sufficient credible data shows that the water body or stream segment is failing to achieve compliance with applicable water quality standards.

(14) "Industrial waste" means a waste substance from the process of business or industry or from the development of any natural resource, together with any sewage that may be present.

(15) "Interested person" means a person who has a real property interest, a water right, or an economic interest that is or may be directly and adversely affected by the department's preliminary decision regarding degradation of state waters, pursuant to 75-5-303. The term includes a person who has requested authorization to degrade high-quality waters.

(16) "Load allocation" means the portion of a receiving water's loading capacity that is allocated to one of its existing or future nonpoint sources or to natural background sources.

(17) "Loading capacity" means the mass of a pollutant that a water body can assimilate without a violation of water quality standards. For pollutants that cannot be measured in terms of mass, it means the maximum change that can occur from the best practicable condition in a surface water without causing a violation of the surface water quality standards.

(18) "Local department of health" means the staff, including health officers, employed by a county, city, city-county, or district board of health.

(19) "Metal parameters" includes but is not limited to aluminum, antimony, arsenic, beryllium, barium, cadmium, chromium, copper, fluoride, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc.

(20) "Mixing zone" means an area established in a permit or final decision on nondegradation issued by the department where water quality standards may be exceeded, subject to conditions that are imposed by the department and that are consistent with the rules adopted by the department.

~~(21) "Nutrient work group" means an advisory work group, convened by the department, representing publicly owned and privately owned point sources of pollution, nonpoint sources of pollution, and other interested parties that will advise the department on nutrient standards, the implementation of those standards, and associated economic impacts.~~

~~(22)~~(21)"Other wastes" means garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, sand, ashes, offal, night soil, oil, grease, tar, heat, chemicals, dead animals, sediment, wrecked or discarded equipment, radioactive materials, solid waste, and all other substances that may pollute state waters.

~~(23)~~(22)"Outstanding resource waters" means:

(a) state surface waters located wholly within the boundaries of areas designated as national parks or national wilderness areas as of October 1, 1995; or

(b) other surface waters or ground waters classified by the department under the provisions of 75-5-316 and approved by the legislature.

~~(24)~~(23)"Owner or operator" means a person who owns, leases, operates, controls, or supervises a point source.

~~(25)~~(24)"Parameter" means a physical, biological, or chemical property of state water when a value of that property affects the quality of the state water.

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~~(28)~~(27)(a) "Pollution" means:

(i) contamination or other alteration of the physical, chemical, or biological properties of state waters that exceeds that permitted by Montana water quality standards, including but not limited to standards relating to change in temperature, taste, color, turbidity, or odor; or

(ii) the discharge, seepage, drainage, infiltration, or flow of liquid, gaseous, solid, radioactive, or other substance into state water that will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, or welfare, to livestock, or to wild animals, birds, fish, or other wildlife.

(b) The term does not include:

(i) a discharge, seepage, drainage, infiltration, or flow that is authorized under the pollution discharge permit rules adopted by the department under this chapter;

(ii) activities conducted under this chapter that comply with the conditions imposed by the department in short-term authorizations pursuant to 75-5-308;

(iii) contamination of ground water within the boundaries of a geologic storage reservoir, as defined in 82-11-101, by a carbon dioxide injection well in accordance with a permit issued pursuant to Title 82, chapter 11, part 1;

(iv) contamination of ground water within the boundaries of an underground mine using in situ coal

gasification and operating in accordance with a permit issued under 82-4-221;

(c) Contamination referred to in subsections ~~(28)(b)(iii) and (28)(b)(iv)~~ (27)(b)(iii) and (27)(b)(iv) does not require a mixing zone.

~~(29)~~(28)"Sewage" means water-carried waste products from residences, public buildings, institutions, or other buildings, including discharge from human beings or animals, together with ground water infiltration and surface water present.

~~(30)~~(29)"Sewage system" means a device for collecting or conducting sewage, industrial wastes, or other wastes to an ultimate disposal point.

~~(31)~~(30)"Standard of performance" means a standard adopted by the department for the control of the discharge of pollutants that reflects the greatest degree of effluent reduction achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, when practicable, a standard permitting no discharge of pollutants.

~~(32)~~(31)(a) "State waters" means a body of water, irrigation system, or drainage system, either surface or underground.

(b) The term does not apply to:

(i) ponds or lagoons used solely for treating, transporting, or impounding pollutants; or

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~~(33)~~(32)"Sufficient credible data" means chemical, physical, or biological monitoring data, alone or in combination with narrative information, that supports a finding as to whether a water body is achieving compliance with applicable water quality standards.

~~(34)~~(33)"Threatened water body" means a water body or stream segment for which sufficient credible data and calculated increases in loads show that the water body or stream segment is fully supporting its designated uses but threatened for a particular designated use because of:

(a) proposed sources that are not subject to pollution prevention or control actions required by a discharge permit, the nondegradation provisions, or reasonable land, soil, and water conservation practices; or

(b) documented adverse pollution trends.

~~(35)~~(34)"Total maximum daily load" or "TMDL" means the sum of the individual waste load allocations

for point sources and load allocations for both nonpoint sources and natural background sources established at a level necessary to achieve compliance with applicable surface water quality standards.

~~(36)~~(35)"Treatment works" means works, including sewage lagoons, installed for treating or holding sewage, industrial wastes, or other wastes.

~~(37)~~(36)"Waste load allocation" means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources.

~~(38)~~(37)"Water quality protection practices" means those activities, prohibitions, maintenance procedures, or other management practices applied to point and nonpoint sources designed to protect, maintain, and improve the quality of state waters. Water quality protection practices include but are not limited to treatment requirements, standards of performance, effluent standards, and operating procedures and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from material storage.

~~(39)~~(38)"Water well" means an excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed and intended for the location, diversion, artificial recharge, or acquisition of ground water.

~~(40)~~(39)"Watershed advisory group" means a group of individuals who wish to participate in an advisory capacity in revising and reprioritizing the list of water bodies developed under 75-5-702 and in the development of TMDLs under 75-5-703, including those groups or individuals requested by the department to participate in an advisory capacity as provided in 75-5-704."

Section 4. Repealer. The following section of the Montana Code Annotated is repealed:

75-5-321. Transition for nutrient standards.

Section 5. Repealer. ARM 17.30.660 and 17.30.1388 are repealed.

Section 6. Codification instruction. [Section 2] is intended to be codified as an integral part of Title 75, chapter 5, part 3, and the provisions of Title 75, chapter 5, part 3, apply to [section 2].

Section 7. Effective date. [This act] is effective on passage and approval.

- END -

I hereby certify that the within bill,

HB 664, originated in the House.

Chief Clerk of the House

Speaker of the House

Signed this 23rd day

of April, 2025.

President of the Senate

Signed this 24th day

of April, 2025.

CHAPTER # 338

HOUSE BILL NO. 664

INTRODUCED BY B. MERCER, J. ESP

AN ACT REVISING THE NUTRIENT CRITERIA FOR MONTANA WATER QUALITY STANDARDS; REMOVING REFERENCES TO NUMERIC NUTRIENT STANDARDS IN ADMINISTRATIVE RULE; REPEALING BASE NUMERIC NUTRIENT STANDARDS; PROVIDING DIRECTIONS TO THE DEPARTMENT OF ENVIRONMENTAL QUALITY; PROVIDING RULEMAKING AUTHORITY; ELIMINATING THE NUTRIENT WORK GROUP; AMENDING SECTION 75-5-103, MCA; REPEALING SECTION 75-5-321, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE DATE.

STATE OF MONTANA

FILED

5-5-2025

Secretary of State

By Christi Jacobsen

This bill was received by the Governor

this 25th **day**

of April **, 2025.**

By Brandon Wenzel

Approved May 1st **, 2025**

Governor

EXHIBIT B

EXHIBIT F - EPA's October 3, 2025 Action Letter on DEQ's Submission of HB664 & Elimination of NNC

REGION 8 ADMINISTRATOR
DENVER, CO 80202

SENT VIA EMAIL

Director Sonja Nowakowski
Montana Department of Environmental Quality
sonja.nowakowski@mt.gov

Subject: EPA's action on Montana's water quality standards in Sections 1, 2(1), and 5 of House Bill 664

Dear Director Nowakowski:

Thank you for your letter of May 7, 2025, submitting Montana House Bill 664 (HB 664), signed into law on May 1, 2025, to the U.S. Environmental Protection Agency (EPA) for review pursuant to Clean Water Act (CWA) section 303(c). HB 664 repealed the State of Montana's numeric criteria for nutrient water quality standards (WQS), leaving in place narrative criteria for nutrients. The submittal was accompanied by a certification letter from the Montana Department of Environmental Quality (MDEQ) Chief Legal Counsel, on designated authority from the Montana Attorney General, indicating that HB 664 was duly adopted into state law. This certification is in conformance with the minimum requirements for a WQS submission under EPA's regulations at 40 C.F.R. § 131.6(e).

HB 664 includes provisions that direct MDEQ to repeal MDEQ Circular DEQ-12A base numeric nutrient standards and to amend state regulations to remove all references to DEQ-12A, base numeric nutrient standards, and nutrient standards variances.[1] Separately, HB 664 also repeals the authorizing provision for nutrient standards variances contained in Administrative Rules of

[1] For purposes of today's action, the EPA interprets "nutrient standards variances" as articulated in Section 1 of HB 664 to refer to Montana's Circular DEQ-12B.

Montana (ARM) 17.30.660. While HB 664 is a legislative action directing MDEQ to make changes to its WQS regulations, and EPA would expect any corresponding regulatory changes to be submitted to EPA consistent with CWA section 303(c)(2), EPA acknowledges MDEQ's decision to submit the legislation as WQS for EPA's review.

This approval of HB 664 comes on the heels of EPA's 2022 disapproval of Montana's Senate Bill (SB) 358 which, among other things, established a transition from numeric to narrative criteria for nutrients. EPA disapproved SB 358 despite no submission to EPA as required by section 303 of the CWA. Instead, EPA acted in response to litigation brought by an environmental non-governmental organization alleging a mandatory duty for EPA to approve or disapprove of SB 358. This mandatory duty suit and EPA's subsequent disapproval of SB 358 was done prior to MDEQ's adoption of implementing regulations or any submission by the State of Montana, in a precedential action in contravention of the CWA's statutory scheme. *See* 33 U.S.C. 1313(c)(2)(A) ("Whenever the State revises or adopts a new standard, such revised or new standard shall be submitted to the Administrator."). Nothing in the CWA requires or permits EPA to examine state laws for what it determines to be WQS absent a submission to EPA by a state. To emphasize, such authority or mandatory duty on EPA's part is only triggered upon submission to EPA.

The CWA does not require states to adopt numeric nutrient criteria. In fact, EPA's regulations authorize states to adopt narrative criteria. *See* 40 C.F.R. § 131.11(a)-(b). Further, although laws that are not self-implementing are not typically WQS, EPA is acting to approve HB 664 since it was submitted as such. However, EPA will review Montana's regulations implementing HB 664 once those regulations are promulgated and sent to EPA in accordance with 40 C.F.R. § 131.6(e).

Therefore, as discussed below, EPA has reviewed the legislation and is approving the relevant provisions as consistent with the requirements of the CWA and 40 C.F.R. Part 131.

Clean Water Act Review Requirements

CWA section 303(c)(2) requires states and authorized Indian Tribes[2] to submit new or revised WQS to EPA for review. Following such a submission, EPA must approve or disapprove those submitted standards. CWA section 303(c)(3) requires EPA to determine whether the new or revised standards in state submissions are consistent with the applicable requirements of the Act.

[2] CWA section 518(e) specifically authorizes EPA to treat eligible Indian Tribes in the same manner as states for purposes of CWA section 303. *See also* 40 C.F.R. § 131.8.

Today's Action

EPA's review under the CWA is centered on whether the provisions are consistent with applicable requirements of the CWA and EPA's implementing regulations. EPA's review includes Section 1 of HB 664, Section 2(1) of HB 664, and Section 5 of HB 664 as it pertains to ARM 17.30.660.

Sections 1 and 2(1) of HB 664 serve to remove the applicable "base numeric nutrients standards," which EPA refers to as "numeric nutrient criteria" (NNC) in this document, and nutrient standards variances, leaving narrative criteria (ARM 17.30.637(1)) in place. EPA concludes that Montana's revised WQS meet requirements to protect designated uses (i.e., protection of aquatic life and recreation) under the CWA and its implementing regulations at 40 C.F.R. Part 131. EPA therefore approves Sections 1 and 2(1) of HB 664.

Section 5, pertaining to ARM 17.30.660 of HB 664, removes a previously approved WQS variance authorizing provision specifically for use with the NNC. EPA concludes this provision is consistent with the CWA and its implementing regulations because neither the CWA nor 40 C.F.R. Part 131 requires states to adopt authorizing provisions before being able to adopt WQS variances. EPA therefore approves Section 5 of HB 664 pertaining to ARM 17.30.660. To the extent that MDEQ prefers to have an authorizing provision before using WQS variances under state law, MDEQ has separate WQS variance authorizing provisions (ARM 17.30.661 and 662) that it could use to adopt a WQS variance for nutrients when implementing the narrative criteria. Any WQS variances must be submitted to EPA and obtain EPA approval to be effective for CWA purposes. *See* 40 C.F.R. § 131.14.

As a result of this determination, Sections 1, 2(1), and (5) of HB 664 pertaining to ARM 17.30.660 are effective for CWA purposes, including for implementation in the CWA Section 402 National Pollutant Discharge Elimination System (NPDES) permitting program (see 40 C.F.R. § 131.21(c)), as of the date of this letter. Other provisions of HB 664 do not constitute new or revised WQS requiring EPA action.

Endangered Species Act Requirements

In addition to EPA's review pursuant to section 303(c) of the CWA, section 7(a)(2) of the Endangered Species Act (ESA) requires federal agencies, in consultation with the National Marine Fisheries Service (NMFS) and/or the U.S. Fish and Wildlife Service (FWS), to ensure their discretionary actions are not likely to jeopardize the continued existence of federally listed species or result in the destruction or adverse modification of designated critical habitat of such species.

Regardless of whether or not EPA is required to consult on approvals of WQS, EPA nevertheless initiated informal consultation with FWS on May 29, 2025, and transmitted its Biological Evaluation to FWS on September 30, 2025.

EPA's approval of the portion of Section 1 that pertains to deletion of the NNC and Section 2(1) of HB 664 pending completion of consultation under ESA Section 7(a)(2) is consistent with Section 7(d) of the ESA because it does not foreclose the formulation or implementation of any reasonable and prudent alternatives that might be determined to be appropriate. *See* 50 C.F.R. § 402.09. MDEQ will be able to translate the narrative relying upon the available science to provide the same level of protection for federally-listed species as afforded by the NNC. Application of the narrative criteria based on current and site-specific information should prevent adverse effects to listed species and designated critical habitat by minimizing algal biomass, preventing significant changes in the aquatic community, and providing the water quality (pH and dissolved oxygen) necessary to support aquatic life. EPA retains options available under CWA Section 303(c) for ensuring WQS are environmentally protective, including the authority under CWA Section 303(c)(4)(B) to take action, when necessary, regarding WQS for Montana. EPA can also encourage the State to consider listed species and designated critical habitat when it revises WQS to ensure protection of listed species.

Indian Country and Lands of Exclusive Federal Jurisdiction

EPA's approval of Montana's WQS does not extend to Indian country as defined in 18 U.S.C. § 1151, or to lands of exclusive federal jurisdiction. Indian country in Montana generally includes (1) lands within the exterior boundaries of the following Indian reservations located within Montana: the Blackfeet Indian Reservation, the Crow Indian Reservation, the Flathead Reservation, the Fort Belknap Reservation, the Fort Peck Indian Reservation, the Northern Cheyenne Indian Reservation, and the Rocky Boy's Reservation; (2) any land held in trust by the United States for an Indian Tribe (including but not limited to the Little Shell Tribe of Chippewa Indians); and (3) any other areas that are "Indian country" within the meaning of 18 U.S.C. § 1151. EPA does not maintain a map or list delineating all lands of exclusive Federal jurisdiction. However, EPA is currently aware of the following lands of exclusive federal jurisdiction located within Montana: Glacier National Park, 16 U.S.C. § 163, Yellowstone National Park, 16 U.S.C. § 24, and the Little Bighorn Battlefield on the Crow Reservation, 46 Stat. 168. EPA, or EPA-authorized Indian Tribes, as appropriate, retain responsibilities under CWA section 303 in Indian country and in lands of exclusive federal jurisdiction. Today's action is not intended as an action to approve or disapprove WQS for waters within Indian country and in lands of exclusive federal jurisdiction.

Conclusion

EPA is pleased to support Montana in its work to implement the Clean Water Act and protect state waters.

Sincerely,

Cyrus M. Western
Regional Administrator

Enclosure

cc: Lindsey Krywaruchka, Administrator, Water Quality Division

Rationale for the EPA's Approval of Montana's Nutrient Provisions in Sections 1, 2(1), and 5 of House Bill 664

I. Background

A. Relevant Clean Water Act (CWA) Requirements

CWA section 303(c)(2)(A) specifies that water quality standards "shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation." Additionally, CWA section 303(c)(1) and (2)(A) provide that states review and, as appropriate, modify and adopt WQS, and submit such revised or new WQS to the EPA for review. CWA section 303(c)(2)(A) provides that such standards shall consist of the designated uses (e.g., protection of aquatic life, recreation in and on the water) of the navigable waters involved and the water quality criteria for such waters based upon such uses. Numeric criteria specify precise, measurable levels of pollutants, while narrative criteria describe desired water quality conditions in a qualitative way.

CWA Section 303(c)(2)(B) requires states to adopt numeric criteria for parameters listed as "priority pollutants" (toxic pollutants listed pursuant to CWA section 307(a)) for which the EPA has published recommended criteria under CWA Section 304(a)), where their discharge or presence in the affected waters could reasonably be expected to interfere with designated uses. Nutrients have not been identified as priority pollutants. Thus, there is no specific CWA requirement to adopt or retain numeric criteria for nutrients.

The EPA's implementing regulation requires states to adopt water quality criteria that protect the designated use and specifies that such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use. 40 C.F.R. § 131.11(a)(1). The portion of the regulation that implements CWA section 303(c)(2)(B), regarding priority pollutants, contains mandatory language. 40 C.F.R. § 131.11(a)(2). In contrast, the portion of the regulation that is not specific to priority pollutants uses the word "should." The latter portion provides that states should 1) establish numeric criteria based on CWA section 304(a) guidance, such guidance modified to reflect site-specific conditions, or other scientifically defensible methods, and 2) establish narrative criteria or criteria based upon biomonitoring methods where numerical criteria cannot be established or to supplement numerical criteria. 40 C.F.R. § 131.11(b). Thus, for non-priority pollutants such as nutrients, the regulation shows a preference for numeric criteria over narrative criteria but does not require numeric criteria.

B. History of Nutrient Criteria in Montana

Nutrients such as nitrogen and phosphorus are necessary to support the health and diversity of lakes and streams. Although nutrients are generally not considered to have toxic effects, elevated and sustained nutrient concentrations (nutrient enrichment) can lead to excess algae growth or other impacts to the biological community. Until 2014, Montana relied on a general narrative provision (ARM 17.30.637(1)) [1] as the sole basis to address nutrient enrichment.

In 2014, Montana Department of Environmental Quality (MDEQ) adopted WQS for nutrients and submitted the package to the EPA for action under CWA section 303(c). The standards included numeric nutrient criteria (NNC) for total nitrogen (TN) and total phosphorus (TP) to protect the designated uses of wadeable streams[2] and the Yellowstone River from the confluence of the Bighorn River to the state line with North Dakota, WQS variances[3] for nutrients justified based on the economic impacts of attaining the NNC for facilities discharging to these waters, and non-severability provisions linking the applicability of NNC to the availability of WQS variances for nutrients. MDEQ also retained the narrative criteria, which are the only WQS that have ever been in effect for nutrients for CWA purposes for lakes/reservoirs and all non-wadeable streams and rivers within Montana (except certain segments of the Yellowstone River). The EPA approved the NNC and WQS variances pursuant to CWA section 303(c) in 2015. In 2017, the EPA approved Montana's revised WQS variance for a subset of dischargers. The EPA subsequently approved the non-severability provisions in 2020.[4]

MDEQ considered multiple lines of evidence in establishing the 2014 NNC, including: (a) nutrient concentrations from reference distributions; (b) nitrogen to phosphorus (N:P) ratios observed at reference sites; and (c) thresholds identified in scientific studies derived from stressor-response

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[1] ARM 17.30.637 GENERAL PROHIBITIONS (1) State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will:… (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and (e) create conditions which produce undesirable aquatic life.

[2] A wadeable stream means a perennial or intermittent stream in which most of the wetted channel is safely wadeable by a person during baseflow conditions. Montana Department of Environmental Quality, Department Circular DEQ-12A, Montana Base Numeric Nutrient Standards, July 2014 edition.

[3] A WQS variance, as defined by the EPA, is a time-limited tool that states, territories, and authorized Tribes can use to improve water quality over time. 40 C.F.R. § 131.3(o). It allows for a temporary adjustment to the applicable designated use and criterion for a specific pollutant or water body, reflecting the highest attainable condition achievable during the variance period. 40 C.F.R. § 131.14. This approach provides flexibility while ensuring progress towards meeting water quality goals.

[4] Litigation occurred from 2016-2021 regarding the EPA's actions on Montana's nutrient WQS. On October 6, 2021, the U.S. Court of Appeals for the Ninth Circuit issued an opinion upholding the EPA's 2017 approval of Montana's WQS variance. *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, 15 F.4th 966 (9th Cir. 2021). Under a district court order issued on October 30, 2020, Montana's WQS variance approved by the EPA on October 31, 2017, and the state's numeric nutrient criteria approved by the EPA on February 26, 2015, remained in effect for CWA purposes until today's action. *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency*, No. CV16-52-GF-BMM, CV-20-27-BMM (D. Mont. Oct. 30, 2020).

analyses. The record accompanying MDEQ's 2014 adoption of the NNC and the EPA's 2015 CWA section 303(c) approval of the NNC documents the NNC are based on sound science and protective of designated uses, and that both TN and TP need to be addressed and limited to protect the applicable designated uses. The EPA is not aware of any information demonstrating that the science has changed to alter these conclusions, and the EPA continues to support dual nutrient control (TP and TN) as a general matter for purposes of developing NNC or translating narrative criteria.[5]

In 2021, Montana enacted state legislation (Senate Bill 358 or SB 358) directing MDEQ to write permits "in a manner consistent with" the narrative criteria; "delete all references to" the NNC and nutrient standards variances; and adopt rules related to Montana's existing narrative criteria that provide for the development of an adaptive management program. On May 10, 2022, the EPA acted on a subset of provisions in SB 358 that it found to be new or revised WQS. The EPA disapproved removal of the NNC because there was inadequate information at the time to demonstrate that narrative criteria alone protect the designated uses. The EPA concluded that the narrative criteria alone did not contain sufficient parameters or constituents to protect the designated use consistent with 40 C.F.R. § 131.11(a)(1), and cited the state's permitting record from July 2020 to March 2022 as evidence of the deficiency.[6,7] The provisions of SB 358 that the EPA disapproved in 2022 are very similar to the provisions of HB 664 that the EPA is approving today. However, the major difference in the approach taken by Montana's legislature between SB 358 and HB 664 is that SB 358 mandated MDEQ to develop rules governing how the state would implement the narrative criteria for nutrients, whereas HB 664 includes no such mandate.

Between the EPA's disapproval action on SB 358 and the state's 2025 legislative session, MDEQ worked on developing rules for an adaptive management program to provide an incremental, watershed approach for protecting and maintaining water quality but suspended rulemaking in 2024 due to stakeholder concerns. With respect to interpreting narrative criteria for nutrients, MDEQ's efforts focused on using available response parameters, such as biological indicators, plant growth, and dissolved oxygen, in conjunction with ranges of nutrient concentrations ("causal" parameters) by geographic region (western versus eastern Montana) and stream slope.[8] These efforts generated a wealth of new information that the state could use to translate the narrative criteria for CWA

[5] USEPA. Preventing Eutrophication: Scientific Support for Dual Nutrient Criteria. February 2015. Available at: www.epa.gov/sites/default/files/documents/nandpfactsheet.pdf.

[6] During much of 2020, MDEQ considered the NNC to be unavailable because it believed the non-severability clause had been triggered, with the effect of eliminating the NNC. In April 2021, the Montana legislature passed SB 358. Throughout this time, MDEQ generally applied the narrative criteria rather than the NNC for the purposes of NPDES permitting in determining whether a discharge had the reasonable potential to cause or contribute to an excursion of WQS.

[7] 40 C.F.R. § 131.11(a)(1) requires that criteria must be "based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use."

[8] The EPA has endorsed such a combined approach to integrate causal and response parameters to address nutrient enrichment in streams, producing guiding principles in 2013 (Guiding Principles on an Optional Approach for Developing and Implementing a Numeric Nutrient Criterion that Integrates Causal and Response Parameters. 2013. EPA-820-F-13-039. https://www.epa.gov/sites/production/files/2013-09/documents/guiding-principles.pdf).

implementation purposes, such as NPDES permitting. The EPA provided MDEQ with a comprehensive set of comments and recommendations on its proposed approach in June 2024.[9] Overall, the EPA supported the approach of using response variables in conjunction with nutrient concentrations but questioned whether some of the proposed response parameter thresholds were protective of the aquatic life use. This collaboration between MDEQ and the EPA highlighted the extent to which site-specific assessments could be valuable in tailoring an appropriate level of protection.

II. EPA Action on Section 1, Section 2(1), and Section 5 of HB 664 that Repeals ARM 17.30.660

A. Approval of Section 1 and 2(1) Removal of NNC and Nutrient Standards Variances

The EPA is approving the provisions of HB 664 that constitute revised WQS for the following three reasons: 1) there is no statutory or regulatory requirement for states or authorized Tribes to adopt numeric nutrient criteria or WQS variances; 2) Montana has a wealth of scientific information, including new information since the EPA's 2022 disapproval of NNC removal, to support translating general narrative criteria to site-specific, protective TN and TP levels to protect applicable designated uses; and 3) given that the state is now better positioned to effectively implement the narrative criteria, approval is consistent with the cooperative federalism principles embedded in the CWA.[10] Each one of these is discussed in more detail below.

Regarding requirements to adopt or retain numeric criteria, as described in the background section, neither the CWA nor EPA's implementing regulations require states or authorized Tribes to adopt numeric criteria for nutrients.

MDEQ's narrative criteria state: "State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will: …(d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and (e) create conditions which produce undesirable aquatic life." (Administrative Rules of Montana 17.30.637(1)). This narrative is comprehensive in identifying the potential adverse effects that are caused by nutrient enrichment and does not preclude consideration of any nutrient-related parameters or constituents that may need to be addressed to ensure protection of designated uses. Many states have adopted narrative criteria in their WQS regulations and rely solely on narrative criteria to address nutrient enrichment.[11] The EPA recently reiterated the flexibility states have to

[9] June 10, 2024, letter from Stephanie DeJong, EPA Region 8 Clean Water Branch Manager to Andy Ulven, MDEQ Water Quality Planning Bureau Chief.

[10] Cooperative federalism is a system where the federal and state governments collaborate and share power to implement policies and programs, emphasizing shared responsibility, mutual accountability, and flexibility. The CWA is a prime example of cooperative federalism in action, where the federal government and state governments share responsibility for protecting and restoring the nation's water quality.

[11] www.epa.gov/wqs-tech/state-specific-water-quality-standards-effective-under-clean-water-act-cwa

translate narrative criteria when advising states how to use the EPA's recommended models for deriving nutrient criteria for lakes, saying states "may rely on the recommended criteria as one approach to derive protective numeric targets to implement narrative criteria (i.e., both general, "free from" and nutrient specific narrative criteria) for CWA purposes."[12]

Additionally, states have the discretion to adopt WQS variances[13] when and where the designated use and associated criterion are shown to be unattainable for a period of time, consistent with 40 C.F.R. 131.14. WQS variances serve the national goal in Section 101(a)(2) of the CWA and the ultimate objective of the Act to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" by providing a mechanism to incrementally improve water quality in a transparent and accountable manner. 40 C.F.R. 131.14 serves to explicitly authorize states and authorized Tribes to use WQS variances where appropriate and consistent with the CWA and implementing regulation.[14] However, no state or authorized Tribe is required to use WQS variances. Therefore, MDEQ has the discretion to remove applicable WQS variances as it sees fit. As such, the EPA is approving the state's removal of the "nutrient standards variances" as specified in Section 1 of HB 664 and doing so means any nutrient WQS variance authorized in DEQ-12B is no longer applicable for CWA purposes. This action, however, does not preclude the state from adopting WQS variances that comply with the CWA and the federal regulation at 40 C.F.R. § 131.14, in the future.

Regarding the large volume of data and information Montana has available to translate narrative criteria, Montana has conducted studies to better evaluate the potential effects of nutrient enrichment.[15] MDEQ has studied the effects of nutrients on aquatic life and recreation in wadeable streams and large rivers: assembling existing data collected at high quality reference sites, conducting site-specific stressor-response studies, collecting data required to run mechanistic models to evaluate impacts of nutrient enrichment, and assembling relevant scientific literature. *Id.* More recently, as part of their follow up efforts after passage of SB 358, MDEQ produced several analyses that integrated physical and biological responses with levels of nutrient enrichment. For example, MDEQ produced an analysis of daily patterns of dissolved oxygen change in flowing waters of Montana (December 4, 2023)[16] and an identification of eutrophication thresholds associated with benthic macroinvertebrate condition in Montana streams (October 5, 2023).[17] The methods MDEQ explored reflected a new

[12] U.S. Environmental Protection Agency, October 2023. "Frequently Asked Questions: Implementing the 2021 Recommended Clean Water Act Section 304(a) Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs". EPA-820-R-23-008. https://www.epa.gov/system/files/documents/2023-10/faqs-implementing-lakes-reservoirs.pdf

[13] 40 C.F.R. § 131.14.

[14] *Water Quality Standards Regulatory Revisions*, 80 Fed. Reg. 51035 (August 21, 2015).

[15] *See e.g.*, MDEQ 2021. "Annotated Bibliography of the Principal DEQ Technical Reports Related to Nutrients, and a Bibliography of Peer-Reviewed Scientific Papers from the Department Related to Nutrients."

[16] Suplee, M., 2023. "An Analysis of Daily Patterns of Dissolved Oxygen Change in Flowing Waters of Montana. Prepared by the Montana Department of Environmental Quality, December 4, 2023.

[17] Schulte, N.O. and Craine, J.M., 2023. "Eutrophication thresholds associated with benthic macroinvertebrate condition in Montana streams". Prepared for the Montana Department of Environmental Quality, October 5, 2023.

approach for Montana that could be modified and adapted on a site-specific basis. Additionally, MDEQ has worked with watershed groups, dischargers and other organizations to collect watershed scale nutrient and biological information. MDEQ has ongoing plans to collect data during future permit cycles where data gaps exist. These recent studies and more localized datasets enable MDEQ to translate its narrative criteria on a more site-specific basis.[18]

In its submittal of HB 664, MDEQ stated it will implement the narrative criteria using the best available science. MDEQ also recently shared information with the EPA on its initial thoughts for implementing the narrative standard for NPDES permitting. The "checklist" MDEQ shared includes consideration of ecoregional ranges of protective TN and TP concentrations (which encompass the NNC values), stream reach-specific TN and TP criteria, consultation with staff with local waterbody expertise, and site-specific characteristics of the waterbody (including flow, substrate, continuously monitored dissolved oxygen, benthic algae quantification, expected extent of vascular aquatic plants, benthic aquatic insect indices, and diatom metrics). This site-specific information allows potential changes to the aquatic community to be evaluated using a robust set of indicators, in addition to TN or TP concentrations.

As a result, use of narrative criteria enables Montana to use the latest science and information, including the option to consider the ecoregional ranges used to develop the NNC and then tailor identification of protection needs to reflect localized stream characteristics. For nutrients, the physical setting and sensitivity of the water to adverse effects of enrichment often play a large role. Taking this tailored approach to interpreting the narrative criteria allows MDEQ to more specifically address protection of near-stream and downstream[19] waters.

Regarding cooperative federalism, the EPA recognizes the shared responsibilities it has with the state. In 2020, the EPA addressed the future effect of Montana removing the NNC and associated nutrient standards variances and reverting to the general narrative criteria. At that time, the EPA noted that it would be premature to predict how the state would implement its narrative criteria to address nutrients in the future and that the EPA could not reasonably assume Montana's implementation of its narrative criteria would prove inadequate given that the state had, even at that time, developed a much more robust understanding of the science of nutrient pollution and was thereby better equipped

[18] September 9, 2025, Memo to the File from Stephanie DeJong, Clean Water Branch Manager, EPA Region 8 re. Documentation of July 1, 2025, Meeting with MDEQ; July 1, 2025, Email and Attachments from Andy Ulven, Water Quality Planning Bureau Chief, MDEQ Water Quality Division, re. Implementation Documents, to Cyrus Western, Regional Administrator, EPA Region 8, et. al.; September 30, 2025, Memo to the File from Stephanie DeJong, Clean Water Branch Manager, EPA Region 8 re. Documentation of September 18, 2025, Meeting with MDEQ; October 2, 2025, Memo to the File from Stephanie DeJong, Clean Water Branch Manager, EPA Region 8 re. Documentation of September 30, 2025, Meeting with MDEQ and FWS.

[19] The EPA's implementing regulation at 40 C.F.R. § 131.10(b) requires states to ensure their WQS provide for the attainment and maintenance of the WQS of downstream waters. See also 40 C.F.R. § 122.44(d)(1): "each NPDES permit shall include…any requirements…necessary to achieve WQS established under section 303 of the CWA, including state narrative criteria for water quality."

than in the past to translate and implement the narrative criteria in NPDES permits.[20] In its 2022 disapproval of SB 358 removal of NNC, the EPA cited MDEQ's record of poor implementation in permits when relying solely on narrative protections. Since this time, as cited above, MDEQ has developed ways to incorporate response parameters information directly into the process of translating narrative criteria and plans to implement some of these concepts moving forward. With today's action, the EPA views the state as now better positioned to effectively implement the narrative criteria, as noted above, given the recent studies and more localized datasets that provide site-specific information collected on individual waterbodies, as well as information from MDEQ regarding plans for implementing the narrative.

The EPA retains oversight of state implementation programs and could, for example, object to permits where the water quality-based effluent limits do not appropriately derive from and comply with applicable WQS (including narrative criteria) using CWA section 402 authority or add waters to the state's list of impaired waters where existing and readily available information indicates that those waters are not meeting applicable WQS using CWA section 303(d) authority. In summary, under the cooperative federalism approach embedded in the CWA it is appropriate for the EPA to recognize the work Montana has done to improve its ability to implement the narrative criteria and, given that, allow Montana to use its preferred approach to setting criteria in WQS, while retaining the EPA's oversight responsibilities for programs that implement those WQS.

B. Approval of a Portion of Section 5 - Removal of Nutrient Standard Variances Authorizing Provision (ARM 17.30.660)

The EPA is approving the portion of Section 5 in HB 664 that repeals ARM 17.30.660. ARM 17.30.660 contains Montana's EPA-approved 2015 authorizing provision for individual and general nutrient WQS variances. A WQS variance authorizing provision is considered a general policy subject to the EPA's review and approval (40 C.F.R. 131.13). States are not required to adopt their own WQS variance authorizing provisions before adopting WQS variances (80 Fed. Reg. 51020, 51040 (Aug. 21, 2015)); however, some states have chosen to do so to clarify what information is necessary for the state to adopt WQS variances. The EPA's approval of this portion of Section 5 will result in the repeal of ARM 17.30.660, and thus, the removal of the state's 2015 authorizing provision for individual and general nutrient WQS variances. EPA's regulations do not require states to authorize WQS variances before adopting them. However, to the extent that MDEQ prefers to have an authorizing provision before using WQS variances under state law, MDEQ has separate WQS variance authorizing provisions (ARM 17.30.661 and 662) that it could use to adopt a WQS variance for the narrative nutrient criteria. Any WQS variance ultimately adopted by the state must comply with the federal regulation at 40 C.F.R. § 131.14 and is not effective for CWA purposes until the EPA approves the WQS variance (40 C.F.R. § 131.21(c)(2)).

[20] *Upper Missouri Waterkeeper v. U.S. Environmental Protection Agency,* No. 4:20-cv-000027-BMM (D. Mont.), Defendants' Reply Memorandum in Support of Defendants' Cross-Motion for Summary Judgment at page 7 (Sept. 9, 2020).

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service 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. *(SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)*

I. (a) PLAINTIFFS

UPPER MISSOURI WATERKEEPER, FLATHEAD LAKERS, and the CONFEDERATED SALISH & KOOTENAI TRIBES

(b) County of Residence of First Listed Plaintiff Gallatin
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorneys *(Firm Name, Address, and Telephone Number)*
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DEFENDANTS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and LEE ZELDIN

County of Residence of First Listed Defendant
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE TRACT OF LAND INVOLVED.

Attorneys *(If Known)*

II. BASIS OF JURISDICTION *(Place an "X" in One Box Only)*

- ❒ 1 U.S. Government Plaintiff
- ❒ 3 Federal Question *(U.S. Government Not a Party)*
- ☒ 2 U.S. Government Defendant
- ❒ 4 Diversity *(Indicate Citizenship of Parties in Item III)*

III. CITIZENSHIP OF PRINCIPAL PARTIES *(Place an "X" in One Box for Plaintiff and One Box for Defendant)*

(For Diversity Cases Only)

	PTF	DEF		PTF	DEF
Citizen of This State	❒ 1	❒ 1	Incorporated *or* Principal Place of Business In This State	❒ 4	❒ 4
Citizen of Another State	❒ 2	❒ 2	Incorporated *and* Principal Place of Business In Another State	❒ 5	❒ 5
Citizen or Subject of a Foreign Country	❒ 3	❒ 3	Foreign Nation	❒ 6	❒ 6

IV. NATURE OF SUIT *(Place an "X" in One Box Only)*

CONTRACT
- ❒ 110 Insurance
- ❒ 120 Marine
- ❒ 130 Miller Act
- ❒ 140 Negotiable Instrument
- ❒ 150 Recovery of Overpayment & Enforcement of Judgment
- ❒ 151 Medicare Act
- ❒ 152 Recovery of Defaulted Student Loans (Excludes Veterans)
- ❒ 153 Recovery of Overpayment of Veteran's Benefits
- ❒ 160 Stockholders' Suits
- ❒ 190 Other Contract
- ❒ 195 Contract Product Liability
- ❒ 196 Franchise

REAL PROPERTY
- ❒ 210 Land Condemnation
- ❒ 220 Foreclosure
- ❒ 230 Rent Lease & Ejectment
- ❒ 240 Torts to Land
- ❒ 245 Tort Product Liability
- ❒ 290 All Other Real Property

TORTS

PERSONAL INJURY
- ❒ 310 Airplane
- ❒ 315 Airplane Product Liability
- ❒ 320 Assault, Libel & Slander
- ❒ 330 Federal Employers' Liability
- ❒ 340 Marine
- ❒ 345 Marine Product Liability
- ❒ 350 Motor Vehicle
- ❒ 355 Motor Vehicle Product Liability
- ❒ 360 Other Personal Injury
- ❒ 362 Personal Injury - Medical Malpractice

PERSONAL INJURY
- ❒ 365 Personal Injury - Product Liability
- ❒ 367 Health Care/ Pharmaceutical Personal Injury Product Liability
- ❒ 368 Asbestos Personal Injury Product Liability

PERSONAL PROPERTY
- ❒ 370 Other Fraud
- ❒ 371 Truth in Lending
- ❒ 380 Other Personal Property Damage
- ❒ 385 Property Damage Product Liability

CIVIL RIGHTS
- ❒ 440 Other Civil Rights
- ❒ 441 Voting
- ❒ 442 Employment
- ❒ 443 Housing/ Accommodations
- ❒ 445 Amer. w/Disabilities - Employment
- ❒ 446 Amer. w/Disabilities - Other
- ❒ 448 Education

PRISONER PETITIONS

Habeas Corpus:
- ❒ 463 Alien Detainee
- ❒ 510 Motions to Vacate Sentence
- ❒ 530 General
- ❒ 535 Death Penalty

Other:
- ❒ 540 Mandamus & Other
- ❒ 550 Civil Rights
- ❒ 555 Prison Condition
- ❒ 560 Civil Detainee - Conditions of Confinement

FORFEITURE/PENALTY
- ❒ 625 Drug Related Seizure of Property 21 USC 881
- ❒ 690 Other

LABOR
- ❒ 710 Fair Labor Standards Act
- ❒ 720 Labor/Management Relations
- ❒ 740 Railway Labor Act
- ❒ 751 Family and Medical Leave Act
- ❒ 790 Other Labor Litigation
- ❒ 791 Employee Retirement Income Security Act

IMMIGRATION
- ❒ 462 Naturalization Application
- ❒ 465 Other Immigration Actions

BANKRUPTCY
- ❒ 422 Appeal 28 USC 158
- ❒ 423 Withdrawal 28 USC 157

PROPERTY RIGHTS
- ❒ 820 Copyrights
- ❒ 830 Patent
- ❒ 840 Trademark

SOCIAL SECURITY
- ❒ 861 HIA (1395ff)
- ❒ 862 Black Lung (923)
- ❒ 863 DIWC/DIWW (405(g))
- ❒ 864 SSID Title XVI
- ❒ 865 RSI (405(g))

FEDERAL TAX SUITS
- ❒ 870 Taxes (U.S. Plaintiff or Defendant)
- ❒ 871 IRS—Third Party 26 USC 7609

OTHER STATUTES
- ❒ 375 False Claims Act
- ❒ 400 State Reapportionment
- ❒ 410 Antitrust
- ❒ 430 Banks and Banking
- ❒ 450 Commerce
- ❒ 460 Deportation
- ❒ 470 Racketeer Influenced and Corrupt Organizations
- ❒ 480 Consumer Credit
- ❒ 490 Cable/Sat TV
- ❒ 850 Securities/Commodities/ Exchange
- ❒ 890 Other Statutory Actions
- ❒ 891 Agricultural Acts
- ☒ 893 Environmental Matters
- ❒ 895 Freedom of Information Act
- ❒ 896 Arbitration
- ❒ 899 Administrative Procedure Act/Review or Appeal of Agency Decision
- ❒ 950 Constitutionality of State Statutes

V. ORIGIN *(Place an "X" in One Box Only)*

☒ 1 Original Proceeding ❒ 2 Removed from State Court ❒ 3 Remanded from Appellate Court ❒ 4 Reinstated or Reopened ❒ 5 Transferred from Another District *(specify)* ❒ 6 Multidistrict Litigation

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing ***(Do not cite jurisdictional statutes unless diversity)***:
33 USC 1313;16 USC 1536

Brief description of cause:
lawsuit alleges violations of environmental laws

VII. REQUESTED IN COMPLAINT:

❒ CHECK IF THIS IS A **CLASS ACTION** UNDER RULE 23, F.R.Cv.P.

DEMAND $

CHECK YES only if demanded in complaint:
JURY DEMAND: ❒ Yes ☒ No

VIII. RELATED CASE(S) IF ANY

(See instructions): JUDGE _____ DOCKET NUMBER _____

DATE 01/26/2026

SIGNATURE OF ATTORNEY OF RECORD /s/Timothy M. Bechtold

FOR OFFICE USE ONLY

RECEIPT # _____ AMOUNT _____ APPLYING IFP _____ JUDGE _____ MAG. JUDGE _____

INSTRUCTIONS FOR ATTORNEYS COMPLETING CIVIL COVER SHEET FORM 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 service of pleading 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. The attorney filing a case should complete the form as follows:

I.(a) **Plaintiffs-Defendants.** Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use only the full name or standard abbreviations. If the plaintiff or defendant is an official within a government agency, identify first the agency and then the official, giving both name and title.

(b) **County of Residence.** For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the "defendant" is the location of the tract of land involved.)

(c) **Attorneys.** Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see attachment)".

II. **Jurisdiction.** The basis of jurisdiction is set forth under Rule 8(a), F.R.Cv.P., which requires that jurisdictions be shown in pleadings. Place an "X" in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below.
United States plaintiff. (1) Jurisdiction based on 28 U.S.C. 1345 and 1348. Suits by agencies and officers of the United States are included here.
United States defendant. (2) When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box.
Federal question. (3) This refers to suits under 28 U.S.C. 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.
Diversity of citizenship. (4) This refers to suits under 28 U.S.C. 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below**; NOTE: federal question actions take precedence over diversity cases.**)

III. **Residence (citizenship) of Principal Parties.** This section of the JS 44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.

IV. **Nature of Suit.** Place an "X" in the appropriate box. If the nature of suit cannot be determined, be sure the cause of action, in Section VI below, is sufficient to enable the deputy clerk or the statistical clerk(s) in the Administrative Office to determine the nature of suit. If the cause fits more than one nature of suit, select the most definitive.

V. **Origin.** Place an "X" in one of the six boxes.
Original Proceedings. (1) Cases which originate in the United States district courts.
Removed from State Court. (2) Proceedings initiated in state courts may be removed to the district courts under Title 28 U.S.C., Section 1441. When the petition for removal is granted, check this box.
Remanded from Appellate Court. (3) Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.
Reinstated or Reopened. (4) Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.
Transferred from Another District. (5) For cases transferred under Title 28 U.S.C. Section 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.
Multidistrict Litigation. (6) Check this box when a multidistrict case is transferred into the district under authority of Title 28 U.S.C. Section 1407. When this box is checked, do not check (5) above.

VI. **Cause of Action.** Report the civil statute directly related to the cause of action and give a brief description of the cause. **Do not cite jurisdictional statutes unless diversity.** Example: U.S. Civil Statute: 47 USC 553 Brief Description: Unauthorized reception of cable service

VII. **Requested in Complaint.** Class Action. Place an "X" in this box if you are filing a class action under Rule 23, F.R.Cv.P.
Demand. In this space enter the actual dollar amount being demanded or indicate other demand, such as a preliminary injunction.
Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.

VIII. **Related Cases.** This section of the JS 44 is used to reference related pending cases, if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.

Date and Attorney Signature. Date and sign the civil cover sheet.

AO 440 (Rev. 06/12) Summons in a Civil Action

UNITED STATES DISTRICT COURT

for the

District of Montana

UPPER MISSOURI WATERKEEPER, FLATHEAD LAKERS, and the CONFEDERATED SALISH & KOOTENAI TRIBES

Plaintiff(s)

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and LEE ZELDIN

Defendant(s)

Civil Action No.

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* Attorney General
U.S. Department of Justice
950 Pennsylvania Ave., NW
Washington DC 20530-0001

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Timothy M. Bechtold
Bechtold Law Firm, PLLC
P.O. Box 7051
Missoula, MT 59807

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

CLERK OF COURT

Date: _____

_____
Signature of Clerk or Deputy Clerk

AO 440 (Rev. 06/12) Summons in a Civil Action

UNITED STATES DISTRICT COURT

for the

District of Montana

UPPER MISSOURI WATERKEEPER, FLATHEAD LAKERS, and the CONFEDERATED SALISH & KOOTENAI TRIBES

Plaintiff(s)

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and LEE ZELDIN

Defendant(s)

Civil Action No.

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* Civil Process Clerk
U.S. Attorney's Office
2601 2nd Ave. N.
Suite 3200
Billings, MT 59101

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Timothy M. Bechtold
Bechtold Law Firm, PLLC
P.O. Box 7051
Missoula, MT 59807

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

CLERK OF COURT

Date: _____

_____
Signature of Clerk or Deputy Clerk

AO 440 (Rev. 06/12) Summons in a Civil Action

UNITED STATES DISTRICT COURT

for the

District of Montana

UPPER MISSOURI WATERKEEPER, FLATHEAD LAKERS, and the CONFEDERATED SALISH & KOOTENAI TRIBES

Plaintiff(s)

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and LEE ZELDIN

Defendant(s)

Civil Action No.

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Timothy M. Bechtold
Bechtold Law Firm, PLLC
P.O. Box 7051
Missoula, MT 59807

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

CLERK OF COURT

Date: _____

_____
Signature of Clerk or Deputy Clerk

AO 440 (Rev. 06/12) Summons in a Civil Action

UNITED STATES DISTRICT COURT

for the

District of Montana

UPPER MISSOURI WATERKEEPER, FLATHEAD LAKERS, and the CONFEDERATED SALISH & KOOTENAI TRIBES

Plaintiff(s)

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and LEE ZELDIN

Defendant(s)

Civil Action No.

SUMMONS IN A CIVIL ACTION

To: *(Defendant's name and address)* Lee Zeldin, Administrator
U.S. Environmental Protection Agency
Mail Code 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Timothy M. Bechtold
Bechtold Law Firm, PLLC
P.O. Box 7051
Missoula, MT 59807

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

CLERK OF COURT

Date: _____

_____
Signature of Clerk or Deputy Clerk