Montana
Board of Environmental Review
P. O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544

AGENDA

FRIDAY, MARCH 20, 2015
METCALF BUILDING, ROOM 111
1520 EAST 6TH AVENUE, HELENA, MONTANA

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NOTE: The Board will make reasonable accommodations for persons with disabilities who wish to participate in this meeting. Please contact the Board Secretary by telephone (406-444-2544) or by e-mail (jwittenberg@mt.gov) no later than 24 hours prior to the meeting to advise her of the nature of the accommodation needed.

9:00 A.M.

I. ADMINISTRATIVE ITEMS

A. REVIEW AND APPROVE MINUTES

The Board will vote on adopting the January 30, 2015, meeting minutes.

II. BRIEFING ITEMS

A. CONTESTED CASE UPDATE

1. Enforcement cases assigned to the Hearing Examiner

   a. **In the matter of violations of the Opencut Mining Act by Bay Materials, LLC at Normont Farms Pit, Toole County, Montana, BER 2014-07 OC.** Discovery by the parties is ongoing.

   b. **In the matter of violation of the Opencut Mining Act by Somont Oil Company, Inc., at Somont Oil Company gravel pit, Toole County (Permit No. 2597, FID 2326, Docket No. OC-14-021), BER 2014-08 OC.** The Board received the appeal in September 2014. On December 23, 2014, the parties submitted a Joint Proposed Prehearing Schedule and Form of Order, suggesting a hearing the week of September 18, 2015. On March 6, 2015, the hearing examiner issued the First Prehearing Order requesting the parties submit a proposed schedule by March 16, 2015.

   c. **In the matter of violations of the Public Water Supply Laws by Rene Requa at Highlander Bar and Grill, PWISD MT0004764, Lewis and Clark County (FID 2299, Docket No. PWS-14-08), BER 2014-09 PWS.** The Board received the appeal on October 2, 2014. On March 5, 2015, the hearing examiner issued the First Prehearing Order requesting the parties submit a proposed schedule by March 13, 2015.

2. Non-enforcement cases assigned to the Hearings Examiner

a. **In the matter of the notice of appeal and request for hearing by Yellowstone Energy Limited Partnership (YELP) regarding issuance of MPDES Permit NO. MT0030180 for YELP's facility in Billings, MT, BER 2014-01 WQ.** On January 12, 2015, the parties filed Joint Motion for Partial Dismissal of Appeal and Continued Stay of Proceedings. On March 5, 2015, the hearing examiner issued Order for Partial Dismissal of Appeal and Continued Stay of Proceedings extending the stay until July 14, 2015.

b. **In the matter of Phillips 66 Company's appeal of Outfall 006 Arsenic Limits in Montana Pollution Discharge Elimination System Permit No. MT0000256, Billings, Yellowstone County, MT, BER 2014-05 WQ.** The Board received the appeal on August 6, 2014. On March 5, 2015, the hearing examiner issued the First Prehearing Order giving the parties until March 13, 2015, to file a proposed schedule.

c. **In the matter of Columbia Falls Aluminum Company's (CFAC) appeal of DEQ's modification of Montana Pollutant Discharge Elimination System Permit No. MT0030066, Columbia Falls, Flathead County, MT, BER 2014-06 WQ.** The Board received the appeal on August 22, 2014. On March 6, 2015, the hearing examiner issued the First Prehearing Order giving the parties until March 16, 2015, to file a proposed schedule.

3. Contested Cases not assigned to a Hearing Examiner

a. **In the matter of the notice of appeal and request for hearing by Western Energy Company (WECO) regarding its MPDES Permit No. MT0023965 issued for WECO's Rosebud Mine in Colstrip, BER 2012-12 WQ.** On April 9, 2014, the hearings examiner issued an Order Granting the Joint Unopposed Motion for Partial Remand of Permit to Department of Environmental Quality and for Suspension of Proceedings. On May 14, 2014, DEQ filed a Status Report regarding the matter stating that a modified permit would be made available for public comment on or before June 9, 2014.

b. **In the matter of the notice of appeal for hearing by Montana Environmental Information Center (MEIC) regarding DEQ's approval of coal mine permit No. C1993017 issued to Signal Peak Energy, LLC, for Bull Mountain Mine No. 1 in Roundup, MT, BER 2013-07 SM.** The Board was scheduled to hold oral argument on Appellant MEIC's Motion for Summary Judgment, filed April 11, 2014, and on Signal Peak Energy's Cross Motion for Summary Judgment, filed May 30, 2014. On March 12, 2015, the Board received Appellant Montana Environmental Information Center's Unopposed Motion to Reset Hearing on Summary Judgment requesting that oral argument be delayed until the Board's May 29, 2015, meeting.

B. OTHER BRIEFING ITEMS

1. The department will brief the Board on a future rule initiation to adopt site-specific electrical conductivity (EC) and sodium adsorption ratio (SAR) criteria for Otter Creek, tributary to the Tongue River, based on the natural EC and SAR of Otter Creek.

2. The department will brief the Board on EPA's recent action regarding Montana's Numeric Nutrient Criteria and Variance Rules.

III. ACTION ITEMS

A. REPEAL, AMENDMENT, OR ADOPTION OF FINAL RULES

1. In the matter of proposed adoption of amendments to ARM 17.8.103, ARM 17.8.201, ARM 17.8.202, ARM 17.8.204, and ARM 17.8.230 to reference the latest version of the Montana Ambient Air Quality Program Quality Assurance Project Plan; incorporate applicable federal ambient air quality monitoring rules and guidance by reference; remove references to certain outdated and/or improperly incorporated federal guidance and/or policy documents; and the repeal of ARM 17.8.206 pertaining to methods and data. The department is requesting that the Board adopt the amendments as proposed in MAR 17-367, and amended in the Notice of Adoption.

B. FINAL ACTION ON CONTESTED CASES

1. **In the matter of violations of the Public Water Supply Laws by Trailer Terrace Mobile Park, LLC, Dennis Deschamps and Dennis Rasmussen at the Trailer Terrace, PWSID No. MT0000025, Great Falls, Cascade County, BER 2012-11 PWS.** On March 2, 2015, the parties filed a joint Stipulation for Dismissal. An order dismissing the matter will be presented for the Board's signature.

IV. GENERAL PUBLIC COMMENT

Under this item, members of the public may comment on any public matter within the jurisdiction of the Board that is not otherwise on the agenda of the meeting. Individual contested case proceedings are not public matters on which the public may comment.

V. ADJOURNMENT

Montana
Board of Environmental Review
P. O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544

MINUTES

January 30, 2015

Call to Order

The Board of Environmental Review's regularly scheduled meeting was called to order by Madam Chair Shropshire at 9:04 a.m., on Friday, January 30, 2015, in Room 111 of the Metcalf Building, 1520 East Sixth Avenue, Helena, Montana.

Attendance

Board Members Present via Teleconference: Madam Chair Shropshire, Heidi Kaiser, Larry Mires, Joe Russell, Joan Miles, Marietta Canty, and Chris Tweeten

Board Attorney Present: Ben Reed, Attorney General's Office, Department of Justice

Board Secretary Present: Joyce Wittenberg

Court Reporter Present: Laurie Crutcher, Crutcher Court Reporting

Department Personnel Present: John North, Paul Nicol, Dana David, Kurt Moser, and Norm Mullen – Legal; Hoby Rash, Julie Merkel, Annette Williams, and Liz Ulrich – Air Resources Management Bureau; Jon Dilliard – Public Water Supply & Subdivisions Bureau; John Arrigo – Enforcement Division

Interested Persons Present: *No members of the public were present*

Chairman Shropshire took roll call of Board members present. All Board members were present via telephone.

I.A. Review and approve December 5, 2014, Board meeting minutes.

Chairman Shropshire asked if anyone had comments on the draft minutes. Two changes were recommended. The minutes reflect Ms. Canty as being present at the meeting, when she was actually present via telephone. Also, item II.A.1.d notes that no discussion took place, when in fact there actually was discussion as also noted.

Mr. Mires MOVED to approve the minutes with the corrections noted. Ms. Miles SECONDED the motion. The motion CARRIED with a 7-0 vote.

II.A.1.a. In the matter of violations of the Public Water Supply Laws by Trailer Terrace Mobile Park, LLC, Dennis Deschamps and Dennis Rasmussen at the Trailer Terrace, PWSID No. MT0000025, Great Falls, Cascade County, BER 2012-11 PWS.

Mr. Reed said he had received a request to withdraw the appeal from Mr. Rasmussen, so he expects this matter to conclude.

II.A.1.b. In the matter of violations of the Opencut Mining Act by Bay Materials, LLC at Normont Farms Pit, Toole County, BER 2014-07 OC.

Mr. Reed said this matter is ongoing.

II.A.1.c. In the matter of violation of the Opencut Mining Act by Somont Oil Company, Inc., at Somont Oil Company gravel pit, Toole County (Permit No. 2597, FID 2326, Docket No. OC-14-021), BER 2014-08 OC.

Mr. Reed said this matter is ongoing.

II.A.1.d. In the matter of violations of the Public Water Supply Laws by Rene Requa at Highlander Bar and Grill, PWSID MT0004764, Lewis and Clark County (FID 2299, Docket No. PWS-14-08), BER 2014-09 PWS.

Mr. Reed said he was in the process of issuing a scheduling order in this matter.

II.A.2.a. In the matter of the notice of appeal and request for hearing by Yellowstone Energy Limited Partnership (YELP)) regarding issuance of MPDES Permit No. MT0030180 for YELP's facility in Billings, MT, BER 2014-01 WQ.

Mr. Reed said YELP has agreed to partially withdraw the bulk of its appeal after reaching an agreement with DEQ on most of the permit conditions. He said the remainder should be resolved by March, with a hearing, if necessary, in July.

II.A.2.b. In the matter of Phillips 66 Company's appeal of Outfall 006 Arsenic Limits in MPDES Permit No. MT0000256 Billings, Yellowstone County, BER 2014-05 WQ.

Mr. Reed said this matter is ongoing.

II.A.2.c. In the matter of Columbia Falls Aluminum Company's (CFAC) appeal of DEQ's modification of MPDES Permit No. MT0030066, Columbia Falls, Flathead County, BER 2014-06 WQ.

Mr. Reed said this matter is ongoing.

II.A.3.a. In the matter of the notice of appeal and request for hearing by Western Energy Company (WECO) regarding its MPDES Permit NO. MT0023965 issued for WECO's Rosebud Mine in Colstrip, BER 2012-12 WQ.

Mr. Reed had no updates to share in this matter.

II.A.3.b. In the matter of the notice of appeal for hearing by Montana Environmental Information Center regarding DEQ's approval of coal mine permit No. C1993017 issued to Signal Peak Energy, LLC, for Bull Mountain Mine No. 1 in Roundup, MT, BER 2013-07 SM.

Mr. Reed said there are two summary judgment motions pending in this matter, one of which will likely require a hearing to resolve.

III.A.1. In the matter of the department's request to initiate rulemaking to amend ARM 17.8.102 to incorporate by reference updated federal and state statutes and regulations.

Ms. Ulrich provided a briefing on the proposed rulemaking.

Chairman Shropshire asked if any member of the public would like to comment on the proposed rulemaking. There was no one.

Chairman Shropshire called for a motion to initiate the rulemaking and appoint a hearing examiner to conduct a hearing. Ms. Miles MOVED to initiate the rulemaking. Mr. Russell SECONDED the motion. The motion CARRIED with a 7-0 vote.

III.B.1. In the matter of violations of the Sanitation in Subdivisions Act and Public Water Supply Laws by Roger Emery at the Sunrise Motel, Sidney, Richland County, BER 2013-06 SUB.

Mr. Reed provided information about the case and responded to questions from Board members. He noted that the title of the final document indicated a dismissal order, but should actually be an order granting summary judgment. The text within the document was correct.

Mr. Russell MOVED to amend the document to an order granting summary judgment. Ms. Miles SECONDED the motion. Mr. Tweeten made a substitute motion that the Board approve and authorize the signature of the recommended order on the motion for summary judgment, the Mr. Reed be directed to prepare a new document to substitute for the one that is captioned "Order of Dismissal that would be captioned "Order Granting Summary Judgment," and that the Chair be authorized to sign the corrected order. Mr. Russell concurred with the substitute motion. Ms. Miles SECONDED the motion. The motion CARRIED with a 7-0 vote.

IV. General Public Comment

Chairman Shropshire asked if any member of the audience would like to speak to any

matters before the Board. No one responded.

Mr. North said the next meeting, scheduled for March 20, would likely be an in-person meeting.

V. Adjournment

Chairman Shropshire called for a motion to adjourn. Mr. Tweeten so MOVED. Ms. Miles SECONDED the motion. The motion CARRIED unanimously.

The meeting adjourned at 9:34 a.m.

Board of Environmental Review January 30, 2015, minutes approved:

_____
ROBIN SHROPSHIRE
CHAIRMAN
BOARD OF ENVIRONMENTAL REVIEW

_____
DATE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region08

FEB 26 2015

Ref: 8EPR-EP

Tom Livers, Acting Director
Montana Department of Environmental Quality
P.O. Box 200901
Helena, Montana 59620-0901

Robin Shropshire, Chairman
Montana Board of Environmental Review
Montana Department of Environmental Quality
P.O. Box 200901
Helena, Montana 59620-0901

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), Pryar-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 I. 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

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[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.

BOARD OF ENVIRONMENTAL REVIEW
AGENDA ITEM

EXECUTIVE SUMMARY FOR ACTION ON RULE ADOPTION

Agenda # III.A.1.

Agenda Item Summary: The Department requests that the Board adopt the amendments and repeal proposed in MAR Notice No. 17-367, published December 12, 2014, concerning ambient air quality monitoring, with changes made in response to public comments.

List of Affected Rules: This rulemaking would amend ARM 17.8.101, 17.8.103, 17.8.201, 17.8.202, 17.8.204, and 17.8.230, and repeal ARM 17.8.206.

Affected Parties Summary: The proposed rule amendments would affect any person or entity conducting ambient air quality monitoring according to Department or Board direction.

Scope of Proposed Proceeding: The Board is considering final action on the adoption of amendments to and repeal of the above-referenced rules. The amendments and repeal were proposed in Montana Administrative Register (MAR) Notice No. 17-367. The Board received comments on the proposed amendments and is considering adopting the amendments as proposed with two revisions. See Draft Notice of Amendment and Repeal for a summary of the comments, responses, and revisions.

Background: The Department requests that the board adopt the amendments to ARM 17.8.101, 17.8.103, 17.8.201, 17.8.202, 17.8.204, and 17.8.230, and the repeal of ARM 17.8.206 as summarized below and provided in the attached Draft Notice of Amendment and Repeal.

Proposed revisions to ARM 17.8.101. The proposed revisions would add the definitions of "board" and "department" to this rule because those terms are used throughout chapter 8 and are not defined in the current rules. Terms used in rules need to be defined. Those terms should be defined once, in this rule, for the entire chapter, rather than being defined in each subchapter.

Proposed revisions to ARM 17.8.103. The proposed revisions remove from this rule references to documents that constitute outdated guidance or are already appropriately referenced in the applicable federal regulations incorporated by reference in ARM, Title 17, chapter 8, subchapters 1 and 2.

Proposed revisions to ARM 17.8.201. The proposed revisions would add the definitions of "administrator" and "regional administrator," as those terms are used in 40 CFR Part

58, incorporated by reference in ARM 17.8.202, that define both those terms to mean the department. This would clarify that the Department will be the administrator for that regulation. The proposed revisions also delete the definition of "department," which becomes redundant when the term is defined in ARM 17.8.101 for the entire chapter.

Proposed revisions to ARM 17.8.202. In this rule, the proposed revisions incorporate by reference the updated 2013 version of the Montana Ambient Air Monitoring Program Quality Assurance Project Plan (MT QAPP) and remove the outdated 1996 version. Annually hereafter, or as needed, the Board will initiate rulemaking to update the version of the MT QAPP that is incorporated by reference in the ARM. Also, the Department is proposing to remove from this rule references to volumes I-IV of the Quality Assurance Handbook for Air Pollution Measurement Systems published by the federal Environmental Protection Agency (EPA) for the same reasons given in the discussion of the proposed amendments to ARM 17.8.103.

In response to comments received on the proposed amendments, the proposed incorporation by reference of "EPA Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)" is being struck from the rule. The document was intended to serve as guidance for entities performing PSD monitoring and was not meant to be mandatory.

Proposed revisions to ARM 17.8.204. The proposed revisions clarify that all monitoring performed in the state of Montana must adhere to a single set of federal guidelines, as addressed through the appropriate QAPP document. The proposed revisions eliminate the requirement that entities other than the Department use the MT QAPP, which is adopted in ARM 17.8.202, as described in the revisions to that rule. The MT QAPP is appropriate for the Department to use when conducting ambient monitoring across the state, but is not appropriate for project-specific ambient monitoring by applicants or others because the MT QAPP contains specific processes and procedures required only of regulatory agencies and not within the ability or purview of other entities, such as submitting data to federal databases, determining compliance with NAAQS, providing the public with air quality data, and participating in state and federal research efforts.

To address the requirements of quality assurance for project-specific ambient monitoring, the proposed revisions require that the entity proposing to monitor adopt a project-specific QAPP that satisfies the relevant federal regulations. The proposed revisions would require that an entity must submit the project-specific QAPP to the Department for its review and approval.

In response to comments, the Department is proposing that the requirement that a project-specific QAPP for a PSD monitoring project be prepared according to EPA PSD Guidelines not be adopted. The Department proposes that the rule instead require an entity performing PSD monitoring to consider the PSD Guidelines, but does not make adherence to the Guidelines mandatory.

Also in response to comments, the rule proposed for adoption adds a 60-day review period for the Department to respond to a project-specific QAPP.

Proposed revisions to ARM 17.8.230. The Board is proposing to remove a reference to the semi-automated method for fluoride monitoring in Methods of Air Sampling and Analysis. That document is also being proposed to be removed from incorporation by reference in ARM 17.8.202, as described above.

Proposed repeal of ARM 17.8.206. The Board is proposing to repeal ARM 17.8.206, because the requirements of that rule are already contained in applicable state rules or federal regulations and are, therefore, redundant.

Hearing Information: A public hearing was noticed for January 15, 2015. The hearing examiner designated by the board was ill and the hearing did not occur. Only one interested party appeared for the hearing. He has waived his right to present oral testimony and instead submitted written comments.

Board Options: The board may:

1. Adopt the proposed amendments and repeal as set forth in the attached Notice of Amendment and Repeal;
2. Adopt the proposed amendments with revisions that the Board finds are appropriate and that are consistent with the scope of the Notice of Public Hearing on Proposed Amendment and Repeal and the record in this proceeding; or
3. Decide not to adopt the amendments and repeal.

DEQ Recommendation: The Department recommends that the Board adopt the HB 521 and 311 analyses and amend and repeal the rules as proposed in the attached Draft Notice of Amendment and Repeal.

Enclosures:

1. Notice of Public Hearing on Proposed Amendment and Repeal
2. HB 521 and 311 Analyses
3. Public Comment
4. Draft Notice of Amendment and Repeal

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

In the matter of the amendment of ARM 17.8.101, 17.8.103, 17.8.201, 17.8.202, 17.8.204, and 17.8.230 pertaining to definitions, incorporation by reference and availability of referenced documents, definitions, incorporation by reference, ambient air monitoring, and fluoride in forage and the repeal of ARM 17.8.206 pertaining to methods and data	NOTICE OF PUBLIC HEARING ON PROPOSED AMENDMENT AND REPEAL (AIR QUALITY)

TO: All Concerned Persons

1. On January 15, 2015, at 9:30 a.m., the Board of Environmental Review will hold a public hearing in Room 111, Metcalf Building, 1520 East Sixth Avenue, Helena, Montana, to consider the proposed amendment and repeal of the above-stated rules.

2. The board will make reasonable accommodations for persons with disabilities who wish to participate in this public hearing or need an alternative accessible format of this notice. If you require an accommodation, contact Elois Johnson, Paralegal, no later than 5:00 p.m., January 5, 2015, to advise us of the nature of the accommodation that you need. Please contact Elois Johnson at Department of Environmental Quality, P.O. Box 200901, Helena, Montana 59620-0901; phone (406) 444-2630; fax (406) 444-4386; or e-mail ejohnson@mt.gov.

3. The rules proposed to be amended provide as follows, stricken matter interlined, new matter underlined:

17.8.101 DEFINITIONS As used in this chapter, unless indicated otherwise in a specific subchapter, the following definitions apply:

(1) through (7) remain the same.

(8) "Board" means the Board of Environmental Review as provided for in 2-15-3502, MCA.

(8) through (11) remain the same, but are renumbered (9) through (12).

(13) "Department" means the Department of Environmental Quality as provided for in 2-15-3501, MCA.

(12) through (42) remain the same, but are renumbered (14) through (44).

AUTH: 75-2-111, MCA
IMP: Title 75, chapter 2, MCA

REASON: The board is proposing to add the definitions of "board" and "department" to this rule because the terms are used throughout Chapter 8. Rather than define the terms in each subchapter, the board is proposing to define them

once, in this rule, for the entire chapter.

17.8.103 INCORPORATION BY REFERENCE AND AVAILABILITY OF REFERENCED DOCUMENTS (1) For the purposes of this subchapter, the board adopts and incorporates by reference the following:

(a) through (l) remain the same.

(m) section 112(b)(1) of the Federal Clean Air Act (FCAA), as codified in 42 USC 7412(b)(1), pertaining to substances designated as hazardous air pollutants; and

(n) the Montana Source Test Protocol and Procedures Manual (July 1994 ed.), a department manual pertaining to sampling and data collection, recording, analysis, and transmittal requirements; ~~and~~

~~(o) the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume I: A Field Guide to Environmental Quality Assurance (EPA-600/R-94/038a, revised April 1994); Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part 1 Ambient Air Quality Monitoring Program Quality System Development (EPA-454/R-98/004, revised August 1998); Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III: Stationary Source Specific Methods (EPA-600/R-94/038c, revised September 1994); and Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Methods (EPA-600/R-94/038d, revised March 1995), a federal manual pertaining to sampling and data collection, recording, analysis, and transmittal requirements~~.

(2) through (4) remain the same.

AUTH: 75-2-111, MCA
IMP: Title 75, chapter 2, MCA

REASON: The board is proposing to delete ARM 17.8.103(1)(o) to remove references to Volumes I through IV of the Quality Assurance Handbook for Air Pollution Measurement Systems published by the federal Environmental Protection Agency (EPA). Volumes I, II, and IV are already appropriately referenced in the applicable federal regulations incorporated by reference in ARM Title 17, chapter 8, subchapter 1, and the reference to Volume III was inappropriate, as it did not address ambient monitoring.

17.8.201 DEFINITIONS In this subchapter, the following words and phrases shall have the following meanings:

(1) remains the same.

(2) "Administrator," as used in 40 CFR Part 58, means the department.

(2) through (5) remain the same, but are renumbered (3) through (6).

~~(6) "Department" means the Department of Environmental Quality.~~

(7) through (25) remain the same.

(26) "Regional administrator," as used in 40 CFR Part 58, means the department.

(26) through (33) remain the same, but are renumbered (27) through (34).

AUTH: 75-2-111, 75-2-202, MCA
IMP: 75-2-202, MCA

REASON: The board is proposing to delete the definition of "department" from this subchapter because it is proposing, as discussed above, to define the term in ARM 17.8.101 for the entire chapter. It is unnecessary to define a term in a subchapter when that term is defined for the entire chapter. The board is proposing to add definitions of "administrator" and "regional administrator," as those terms are used in 40 CFR Part 58, which is incorporated by reference in ARM 17.8.202. Those terms would mean the department. This would clarify that the department will be the administrator for that regulation.

17.8.202 INCORPORATION BY REFERENCE (1) For the purposes of this subchapter, the board adopts and incorporates by reference the following:

(a) The Montana Ambient Air Monitoring Program Quality Assurance Project Plan (~~November 1996 ed.~~ 2013), a ~~Department of Environmental Quality~~ department manual ~~specifying~~ that specifies ambient air sampling and data collection, recording, analysis, and transmittal requirements that pertain only to the department's monitoring program;

(b) ~~Quality Assurance Handbook for Air Pollution Measurement Systems, Volume I: A Field Guide to Environmental Quality Assurance, (EPA/600/R-94/038a, revised April 1994); Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part 1 Ambient Air Quality Monitoring Program Quality System Development, (EPA/454/R-98-004, revised August 1998); Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III: Stationary Source Specific Methods, (EPA/600/R-94/038c, revised September 1994); and Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Methods, (EPA/600/R-94/038d, revised March 1995), a federal manual specifying sampling and data collection, recording, analysis, and transmittal requirements~~ EPA Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), EPA-450/4-87-007 (May 1987);

~~(c) Methods of Air Sampling and Analysis, Third Edition (1989), Method No. 204, determination of fluoride content of the atmosphere and plant tissues (semi-automated method), a nationally recognized document specifying field and laboratory analytic procedures;~~

(d) and (e) remain the same, but are renumbered (c) and (d).

~~(f)~~ (e) 40 CFR Part 58, ~~including Appendices A through G,~~ specifying criteria and requirements for ambient air quality monitoring and reporting.

(2) through (4) remain the same.

AUTH: 75-2-111, 75-2-203, MCA
IMP: 75-2-203, MCA

REASON: The board is proposing to amend ARM 17.8.202(1)(a) to incorporate by reference the updated 2013 version of the Montana Ambient Air Monitoring Program Quality Assurance Project Plan (QAPP) and remove the outdated 1996 version of the QAPP. The major changes in the 2013 version include

monitoring protocols for additional pollutants, substitution of citations to federal regulatory language in place of the actual language in the text, and replacement of references to outdated technologies with references to modern methods. For example, ozone, while a regulated pollutant, was not addressed in the 1996 Montana QAPP and PM2.5 was not a regulated pollutant at that time, so was not addressed in the 1996 QAPP. Both pollutants are addressed in the 2013 QAPP. In addition, the 1996 Montana QAPP unnecessarily repeated federal regulatory language and the 2013 version has eliminated that repetition by referencing those requirements instead of repeating them. Numerous other changes address the significant changes in the technologies and methods now used to conduct monitoring compared to those used in 1996. These and other changes are described in Summary of Changes: 1996 to 2013 QAPP. It, and the complete text of the Montana Ambient Air Monitoring Program Quality Assurance Project Plan (2013), are available on the department's web site at http://deq.mt.gov/airmonitoring/monitoringdocuments.mcpx.

Annually hereafter, or as needed, the board will initiate rulemaking to update the version of the QAPP that is incorporated by reference in the ARM. In addition, the board is proposing to remove from this rule references to Volumes I through IV of the Quality Assurance Handbook for Air Pollution Measurement Systems published by EPA for the same reasons given in the discussion of the proposed amendments to ARM 17.8.103. Finally, the board is proposing to incorporate by reference "EPA Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)" (May 1987). These guidelines are used in ARM 17.8.204 to establish the requirements for monitoring performed by sources subject to subchapter 8, which concerns prevention of significant deterioration of air quality. These guidelines are not adopted in the federal regulations adopted by reference in this chapter, but they provide supplemental information that is important when a company makes PSD monitoring determinations and when the department makes decisions about the quality and acceptability of collected monitoring data. The board is proposing to adopt and require compliance with the guidelines to provide as much consistency and clarity as possible to entities developing a monitoring project. Adoption of these guidelines would conform the rules to match the practices that monitoring entities, other than the department, must already follow to obtain air quality data suitable for use in the PSD review process. The complete text of the guidelines is available at http://nepis.epa.gov/Exe/ZyPDF.cgi/2000J2Q6.PDF?Dockey=2000J2Q6.PDF.

17.8.204 AMBIENT AIR MONITORING (1) The requirements of this rule apply to any ambient air monitoring performed by the department or any other entity ~~as required by this chapter, including any ambient air monitoring performed as a result of any condition of any permit issued under subchapters 7 or 8 regardless of the date of issuance, or any other ambient air monitoring by any entity in order to determine compliance with subchapters 2 or 8.~~ that is:

(a) required by this chapter;

(b) used to demonstrate compliance with this chapter;

(c) submitted in an application for, or to comply with a condition of, a permit under this chapter; or

(d) used to satisfy any applicable requirement of Title 75, chapter 2, MCA, or the federal Clean Air Act, 42 USC 7401 through 7671g, or implementing regulations, for which the department has oversight.

(2) ~~Except as otherwise provided in this chapter, or unless written approval is obtained from the department for an exemption from a specific part of the Montana Quality Assurance Project Plan, all sampling and data collection, recording, analysis, and transmittal including, but not limited to, site selection, precision and accuracy determinations, data validation procedures and criteria, preventive maintenance, equipment repairs, and equipment selection must be performed as specified in the Montana Quality Assurance Project Plan, incorporated by reference in ARM 17.8.202, except when more stringent requirements are determined by the department to be necessary pursuant to the Quality Assurance Handbook for Air Pollution Measurement Systems, or 40 CFR Part 50 including Appendices A through E, Part 53, and Part 58 also incorporated by reference in ARM 17.8.202, at which time the latter two documents shall be adhered to for the specific exception.~~ Any entity performing ambient air monitoring within the state of Montana for a purpose listed in (1) shall perform it according to a Quality Assurance Project Plan (QAPP) prepared to satisfy the applicable requirements of 40 CFR Parts 50, 53, and 58, and, if performed to comply with subchapter 8 of this chapter, the EPA Ambient Monitoring Guidelines for PSD, which are adopted by reference in ARM 17.8.202.

(3) If monitoring for a purpose in (1) is performed by:

(a) the department, it must be performed in compliance with the Montana Ambient Air Monitoring Program Quality Assurance Project Plan; or

(b) any other entity, it must be performed in compliance with a project-specific QAPP that has been submitted to and approved by the department.

~~(3)~~ (4) ~~Failure to comply with this rule is grounds to partially or totally invalidate the appropriate ambient air monitoring data which subsequently could result in:~~ The department may invalidate, in whole or in part, ambient air monitoring data that was not obtained in compliance with this rule. Invalidated data may not be used for the purposes listed in (1).

~~(a) a violation of the conditions of a permit issued under subchapters 7 or 8; or~~

~~(b) a determination by the department that a permit application submitted under subchapters 7 or 8 is incomplete; or~~

~~(c) a determination that insufficient ambient air quality data is available to determine compliance with any ambient air quality standard contained in subchapter 2 or a prevention of significant deterioration increment contained in ARM 17.8.804.~~

AUTH: 75-2-111, MCA
IMP: 75-2-201, 75-2-202, MCA

REASON: The proposed amendments to (1) would establish a single, uniform standard by which all regulatory-quality ambient air monitoring must be conducted within the state of Montana, whether performed by the department or any other entity. That standard would require ambient air quality monitoring to comply with ARM 17.8.204, if it is: (a) required by the air quality rules in ARM Title 17, chapter 8 (the rules that implement the Montana Clean Air Act); (b) used to

demonstrate compliance with those rules; (c) submitted as part of an air quality permit application or to comply with an air quality permit condition; or (d) used to satisfy any requirement of the Montana Clean Air Act or federal Clean Air Act, or implementing regulations. These amendments are necessary because the requirements in the current rule that ambient monitoring be performed according to a QAPP are limited to ambient monitoring required by an air quality rule or an air quality permit. These requirements would be retained in the proposed amendments. In addition, the proposed amendments to (1)(c) and (1)(d) would require that ambient monitoring data, that may be submitted in a permit application or to satisfy a requirement of the Montana Clean Air Act or the federal Clean Air Act and implementing regulations, must comply with a QAPP approved under ARM 17.8.204.

The proposed amendment to (1)(c), which would require that monitoring data submitted in an air quality permit application must meet the quality assurance and quality control (QA/QC) requirements of this subchapter, is necessary because that requirement is not in the existing rule and the requirement would ensure that the data in a permit application are reliable. For example, a new mine or electrical generating plant may be required by ARM 17.8.822(5) and (6) to monitor for a year to develop data concerning wind direction and speed and baseline levels of air pollutants before applying for an air quality permit. The proposed requirement in (1)(c) for such pre-application monitoring to be performed according to the QA/QC provisions of this subchapter would ensure that, when the data is submitted as part of a permit application, it has been collected according to acceptable national standards.

The proposed new language in (1)(d), which would require that monitoring used to satisfy any requirement of the state or federal Clean Air Acts or implementing regulations must meet the QA/QC requirements of this subchapter, is necessary because it is not in the existing rules. The proposed requirement would ensure that monitoring used, for example, to influence a nonattainment designation is reliable. For example, under 42 USC 7407(d), a provision of the federal Clean Air Act, each state must submit, within one year after a new national ambient air quality standard (NAAQS) is adopted in federal regulation, a designation to EPA of the attainment status of all areas in the state for that NAAQS. Private entities conducting ambient monitoring for the subject criteria pollutant may also submit data to the department in support of a specific designation. Such monitoring might not be required by Montana law or rules, federal law or regulations, or an air quality permit. However, if data generated by that monitoring is submitted to influence an attainment or nonattainment designation by the department, the proposed new language in (1)(d) would require that it satisfy the ambient air quality monitoring requirements in this subchapter to the same extent as data generated by the department.

The amendments to (2) would eliminate the requirement that all ambient monitoring must be performed according to the Montana Quality Assurance Project Plan (Montana QAPP) and instead require that all ambient monitoring be performed in compliance with a QAPP prepared in accordance with the federal quality assurance regulations and guidelines. The reason the existing requirement should be eliminated is that it is inappropriate and must be replaced as described below. The existing rule requires entities, other than the department, that conduct ambient

air quality monitoring to use the same QAPP that the department uses, unless an exemption is granted by the department. This is not appropriate because the QAPP used by the department contains specific processes and procedures required only of regulatory agencies, which are not within the ability or purview of other entities, such as submitting data to federal databases, determining compliance with NAAQS, providing the public with air quality data, and participating in state and federal research efforts. On the other hand, a QAPP to be used for project-specific monitoring must be designed for the specific characteristics of the area, such as appropriate siting, topography, wind direction and speed, and specifics of the project, such as pollutants to be emitted. In addition, project-specific monitoring may include PSD monitoring, which is required of industrial sources and cannot be conducted by the department. The reference to the Montana QAPP in the existing rule is inappropriate and, in practice, entities other than the department, that conduct ambient monitoring for the purposes in (1), have submitted and obtained department approval for project-specific QAPPs.

The proposed new language in (2) would add the requirement that all ambient monitoring used for a purpose in (1) must be performed according to a QAPP prepared to satisfy federal regulations concerning QA/QC for such monitoring. Under the proposed amendment, all monitoring to be used for a purpose in (1) would be required to be performed according to a QAPP satisfying 40 CFR Parts 50, 53, and 58, including quality assurance requirements for state or local air monitoring stations (SLAMS), special purpose monitor stations (SPMs), and prevention of significant deterioration (PSD) air monitoring. The reason for the proposed new language is to ensure that all monitoring used for a purpose in (1) is performed in compliance with a single set of federal QA/QC requirements. It is beneficial to the department and other entities, as described above, that all monitoring that may be used for a regulatory purpose meet a consistent, defined level of QA/QC. The federal regulations concerning QA/QC already provide a suitable, nationally standardized and applicable apparatus by which to ensure the accuracy and reliability of such monitoring data. Under the proposed rule, the QAPPs required to be used by the department and private entities would all be subject to this same set of regulations.

The proposed new language in (3)(a) would require that, if the monitoring is performed by the department, it must comply with the Montana Ambient Air Monitoring Program Quality Assurance Project Plan. This is a QAPP that is based on the federal regulations in 40 CFR Parts 50, 53, and 58 and is designed to address matters relevant to ambient monitoring conducted by the state. A renamed and updated version of that QAPP is being proposed for adoption in ARM 17.8.202(1)(a). This would bring the Montana requirement up-to-date with federal regulations for ambient monitoring of such pollutants as PM2.5, for example, which was not a regulated pollutant when the last version of the Montana QAPP was adopted in 1996.

The proposed new language in (3)(b) would incorporate the requirement from 40 CFR Part 58 that a project-specific QAPP be submitted to and approved by the department before monitoring begins. In practice, the department has worked to approve QAPP documents in a timely manner and anticipates publishing guidance to that end. A project-specific QAPP is necessary for the reasons discussed above.

When an entity other than the department performs ambient monitoring before a permit application is submitted or to comply with a permit condition, it is required by existing federal regulations to perform it according to a QAPP that has been reviewed and approved by the EPA. Under the proposed amendments to ARM 17.8.201(2) and (26) and ARM 17.8.204(2)(b), the department would be the reviewing and approving authority. The department's review and approval of another entity's QAPP for monitoring performed to satisfy other requirements of the state or federal Clean Air Acts or implementing regulations is not required by federal regulations. However, department review and approval of a QAPP is necessary to ensure that the monitoring data collected will be reliable and appropriate to use for such actions as proposing designations of whether areas are attaining the NAAQS. The complete text of 40 CFR Part 58 is available at http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR&searchPath=Title+40%2FChapter+1%2FSubchapter+C%2FPart+58&oldPath=Title+40%2FChapter+1%2FSubchapter+C%2FPart+58@isCollapsed=true&selectedYearFrom=2013&ycord=1652.

The proposed amendments to (4) would authorize the department to invalidate data submitted for the regulatory purposes described above in (1), if the data was not obtained in compliance with ARM 17.8.204. If invalidated, the department may not use the data for regulatory purposes. While the proposed amendments maintain the department's existing authority to invalidate data, they also authorize the department to exercise discretion not to invalidate data, even if not obtained in compliance with the rule. This amendment would allow the department to determine whether failure to fully comply with the applicable rules and regulations undermines the quality of the data produced. In some cases, substantial compliance may produce data of appropriate quality to be used for a purpose listed in (1). This is consistent with 40 CFR Part 58, Appendix A, the regulation of the federal EPA that governs QAPPs for ambient monitoring. Section 1(a) of that appendix states: "Each monitoring organization is required to implement a quality system that provides sufficient information to assess the quality of the monitoring data. The quality system must, at a minimum, include the specific requirements described in this appendix of this subpart. Failure to conduct or pass a required check or procedure, or a series of required checks or procedures, does not by itself invalidate data for regulatory decision making. Rather, monitoring agencies and EPA shall use the checks and procedures required in this appendix in combination with other data quality information, reports, and similar documents showing overall compliance with Part 58. Accordingly, EPA and monitoring agencies shall use a 'weight of evidence' approach when determining the suitability of data for regulatory decisions." The proposed amendments would also remove language that is unnecessarily repetitive of ARM 17.8.204(1).

17.8.230 FLUORIDE IN FORAGE (1) remains the same.

(2) The following sampling protocol must be applied:

(a) through (g) remain the same.

(h) The composite sample must be thoroughly mixed prior to any chemical analysis. Replicate aliquots are to be taken using a sample splitter or any other unbiased technique, and analyzed chemically for fluoride using ~~the semi-automated~~

a method~~, as more fully described in Methods of Air Sampling and Analysis, incorporated by reference in ARM 17.8.202, except that the surfaces of the plant material must not be washed, or by an approved equivalent method~~ approved by the department.

(i) remains the same.

AUTH: 75-2-111, 75-2-202, MCA
IMP: 75-2-202, MCA

REASON: The board is proposing to remove a reference to the semi-automated method for fluoride monitoring in Methods of Air Sampling and Analysis. That document is also being proposed to be removed from incorporation by reference in ARM 17.8.202, as described above. The reason for the proposed amendment is that the method is no longer commonly used and it is difficult to find an accredited laboratory to perform the post-sampling analysis required by the method. Updated methods are available and the board is proposing that the department will determine, on a case-by-case basis, the appropriate method to be used.

4. The rule proposed to be repealed is as follows:

17.8.206 METHODS AND DATA (AUTH: 75-2-111, 75-2-202, MCA; IMP, 75-2-202, MCA), located at page 17-272, Administrative Rules of Montana. The board is proposing to repeal ARM 17.8.206 because the requirements of that rule are already contained in applicable state rules or federal regulations and are, therefore, redundant. Specifically, the requirements of that rule are contained in the Montana Ambient Air Monitoring Quality Assurance Project Plan, 40 CFR Parts 50, 53, and 58 and EPA's Quality Assurance Handbook for Air Pollution Measurement Systems, all of which are incorporated by reference in ARM 17.8.202.

5. Concerned persons may submit their data, views, or arguments, either orally or in writing, at the hearing. Written data, views, or arguments may also be submitted to Elois Johnson, Paralegal, Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, Montana 59620-0901; faxed to (406) 444-4386; or e-mailed to ejohnson@mt.gov, no later than 5:00 p.m., January 22, 2015. To be guaranteed consideration, mailed comments must be postmarked on or before that date.

6. Ben Reed, attorney for the board, or another attorney for the Agency Legal Services Bureau, has been designated to preside over and conduct the hearing.

7. The board maintains a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list shall make a written request that includes the name, e-mail, and mailing address of the person to receive notices and specifies that the person wishes to receive notices regarding: air quality; hazardous waste/waste oil; asbestos control; water/wastewater treatment plant operator certification; solid

waste; junk vehicles; infectious waste; public water supply; public sewage systems regulation; hard rock (metal) mine reclamation; major facility siting; opencut mine reclamation; strip mine reclamation; subdivisions; renewable energy grants/loans; wastewater treatment or safe drinking water revolving grants and loans; water quality; CECRA; underground/above ground storage tanks; MEPA; or general procedural rules other than MEPA. Notices will be sent by e-mail unless a mailing preference is noted in the request. Such written request may be mailed or delivered to Elois Johnson, Paralegal, Department of Environmental Quality, 1520 E. Sixth Ave., P.O. Box 200901, Helena, Montana 59620-0901, faxed to the office at (406) 444-4386, e-mailed to Elois Johnson at ejohnson@mt.gov, or may be made by completing a request form at any rules hearing held by the board.

8. The bill sponsor contact requirements of 2-4-302, MCA, do not apply.

9. With regard to the requirements of 2-4-111, MCA, the department has determined that the amendment and repeal of the above-referenced rules will not significantly and directly impact small businesses.

Reviewed by: BOARD OF ENVIRONMENTAL REVIEW

/s/ John F. North
JOHN F. NORTH
Rule Reviewer

BY: */s/ Robin Shropshire*
ROBIN SHROPSHIRE
Chairman

Certified to the Secretary of State, December 15, 2014.

Montana Department of
ENVIRONMENTAL QUALITY

MEMO

TO: Board of Environmental Review
FROM: Norman J. Mullen, DEQ Staff Attorney
SUBJECT: House Bill 521 (stringency) and House Bill 511 (takings) review of rulemaking concerning the amendment of ARM 17.8.101, 103, 201, 202, 204, and 230, and the repeal of ARM 17.8.206 (pertaining to air quality assurance project plans for ambient monitoring) in ARM Notice No. 17-367 (publ. 12/24/14)
DATE: January 15, 2015

HB 521 REVIEW
(Comparing Stringency of State and Local Rules
to Any Comparable Federal Regulations or Guidelines)

Sections 75-2-111 and 207, MCA, codify the air quality provisions of House Bill 521, from the 1995 legislative session, by requiring that the Board of Environmental Review, prior to adopting a rule to implement the Clean Air Act of Montana that is more stringent than a comparable federal regulation or guideline that addresses the same circumstances, make certain written findings after a public hearing and receiving public comment.

In this proceeding, the Board is proposing to amend ARM 17.8.101, 103, 201, 202, 204, and 230, and to repeal ARM 17.8.206. I conducted the following analysis to determine if any of these amendments were more stringent than a comparable federal regulation or guideline addressing the same circumstances

The amendments would add definitions of "board" and "department" to ARM 17.8.101, which contains definition used throughout ARM title 17, chapter 8. There is no stringency issue with the proposed amendment to ARM 17.8.101.

The amendment to ARM 17.8.103 would remove from that rule references to guidance and other documents that are already referenced in federal regulations that are incorporated by reference in ARM Title 17, chapter 8, subchapter 1. There is no stringency issue with the proposed amendments to ARM 17.8.103.

The amendment to ARM 17.8.202(1)(a) would adopt and incorporate by reference the updated 2013 version of the Montana Ambient Air Monitoring Program Quality Assurance Project Plan (QAPP) and remove the outdated 1996 version of the QAPP. Montana is required by 40 CFR Part 58, Appendix A, to have a QAPP for ambient monitoring conducted by the state. The

amendment to (1)(b) would eliminate references to volumes of a federal handbook, and would adopt and incorporate by reference guidelines of the federal Environmental Protection Agency (EPA) for ambient monitoring for Prevention of Significant Deterioration (PSD). There is no stringency issue with the proposed amendments to ARM 17.8.202.

The proposed amendments to ARM 17.8.204(1) would make the requirements of ARM 17.8.204 applicable to ambient air quality monitoring performed by any entity if: (a) required by rules adopted under the Montana Clean Air Act, (b) used to demonstrate compliance with those rules, (c) submitted in an application for a Montana air quality permit or to comply with a condition of such a permit, or (d) used to satisfy a requirement of the state or federal clean air acts or implementing regulations. The amendments to ARM 17.8.204(2) would eliminate a requirement that all ambient monitoring be performed according to the Montana QAPP, and replace that with a requirement that all such monitoring be performed according to an appropriate QAPP. The amendments to ARM 17.8.204(3) would require that the Montana QAPP must be followed if the monitoring is performed by the Department, and that a project-specific QAPP that has been submitted to and approved by the Department must be followed if the monitoring is performed by any other entity. The amendments to ARM 17.8.204(4) would provide that the Department may invalidate data that was not obtained in compliance with the rule, and that invalidated may not be used for a purpose in ARM 17.8.204(1).

The proposed amendment requiring that ambient monitoring performed by the Department for purposes of demonstrating compliance with the federal or state clean air acts or implementing rules or regulations must be performed under the Montana QAPP, which would be adopted by the BER to comply with the applicable federal regulations in 40 C.F.R. Parts 50, 53, and 58, is the same as required in those federal regulations. See 40 C.F.R. Part 58, App. A, ¶ 2.1.1 (2014). For monitoring conducted by the Department for another purpose in ARM 17.8.204(1), there is no comparable federal regulation that addresses the same or similar circumstances.

EPA regulations require that monitoring conducted by another entity for purposes of applying for a PSD permit must be performed according to an approved project-specific QAPP. 40 C.F.R. Part 58, App. A, ¶ 1(b) (2014). Therefore, the requirement in the proposed amendment is not more stringent than comparable federal regulations or guidance addressing the same or similar circumstances.

The federal Clean Air Act, at 42 U.S.C. § 7475(a)(7) (2013), gives EPA discretion to require postconstruction ambient monitoring as a permit condition where necessary to determine the effect of the facility on air quality. ARM 17.8.105(1) gives the Department discretion to require such monitoring. There is no federal regulation requiring monitoring according to a project-

specific QAPP for postconstruction monitoring. Therefore, the requirement in the proposed amendment is not more stringent than comparable federal regulations or guidance addressing the same or similar circumstances.

Regarding monitoring performed by an entity other than the Department that is required by a Montana air quality rule or to demonstrate compliance with such a rule, there is no comparable federal regulation. Therefore, the requirement in the proposed amendment is not more stringent than a comparable federal requirement addressing the same or similar circumstances.

Regarding non-PSD ambient monitoring required in an application for a permit or in a condition of a permit, there is no comparable federal regulation. Therefore, the requirement in the proposed amendment is not more stringent than a comparable federal requirement addressing the same or similar circumstances.

Regarding ambient air quality monitoring performed by an entity other than the Department to satisfy a requirement of the state or federal clean air acts or implementing regulations, there is no comparable federal regulation. Therefore, the requirement in the proposed amendment is not more stringent than a comparable federal requirement addressing the same or similar circumstances.

Regarding the proposed amendment addressing invalidation of data not obtained in compliance with ARM 17.8.204, 40 C.F.R. Part 58, Appendix A, ¶ 1(a), gives EPA discretion to invalidate data for use in making regulatory decision based on a "weight of the evidence" approach. The proposed amendment would give the Department similar discretion to invalidate data. Therefore, the requirement in the proposed amendment is not more stringent than a comparable federal requirement addressing the same or similar circumstances.

Regarding the proposed amendment to ARM 17.8.230, which would remove a reference to the semi-automated method for fluoride monitoring in Methods of Air Sampling and Analysis, which is incorporated by reference in ARM 17.8.202, and substitute a case-by-case determination of an appropriate method, there is no comparable federal regulation. Therefore, the proposed amendment would not result in a rule that is more stringent than a comparable federal requirement addressing the same or similar circumstances.

Regarding the proposed repeal of ARM 17.8.206, concerning methods and data requirements for ambient air quality monitoring, the board is proposing the repeal because the requirements are already contained in applicable Montana rules or federal regulations. Therefore, the repeal

would not result in requirements that are more stringent than comparable federal regulations addressing the same or similar circumstances.

Therefore, no further House Bill 521 analysis is required.

HB 311 REVIEW
(Assessing Impact on Private Property)

Sections 2-10-101 through 105, MCA, codify House Bill 311, the Private Property Assessment Act, from the 1995 legislative session, by requiring that, prior to taking an action that has taking or damaging implications for private real property, a state agency must prepare a taking or damaging impact assessment. Under Section 2-10-103(1), MCA, "action with taking or damaging implications" means:

> a proposed state agency administrative rule, policy, or permit condition or denial pertaining to land or water management or to some other environmental matter that if adopted and enforced would constitute a deprivation of private property in violation of the United States or Montana constitution.

Section 2-10-104, MCA, requires the Montana Attorney General to develop guidelines, including a checklist, to assist agencies in determining whether an agency action has taking or damaging implications.

I reviewed the guidelines and researched whether the adoptions of the federal regulations being proposed to be incorporated by reference would constitute a deprivation of real property in violation of the federal or state constitution. I determined that they would not, and have completed an Attorney General's Private Property Assessment Act Checklist, which is attached to this memo. No further House Bill 311 assessment is required.

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST
(using form prepared by Montana Department of Justice, Jan. 2011)

In the matter of the amendment of ARM 17.8.101, 103, 201, 202, 204, and 230, and the repeal of ARM 17.8.206 (pertaining to air quality assurance project plans for ambient monitoring) in ARM Notice No. 17-367 (publ. 12/24/14)

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PRIVATE PROPERTY ASSESSMENT ACT?

YES	NO	
_____	√	1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
_____	√	2. Does the action result in either a permanent or indefinite physical occupation of private property?
_____	√	3. Does the action deprive the owner of all economically beneficial use of the property?
_____	√	4. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If the answer is NO, skip questions 4a and 4b and continue with question 5.]
_____	_____	4a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
_____	_____	4b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
_____	√	5. Does the action deny a fundamental attribute of ownership?
_____	√	6. Does the action have a severe impact on the value of the property?
_____	√	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? [If the answer is **NO**, do not answer questions 7a-7c.]
_____	_____	7a. Is the impact of government action direct, peculiar, and significant?
_____	_____	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
_____	_____	7c. Has government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if **YES** is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 5, 6, 7a, 7b, 7c; or if **NO** is checked in response to questions 4a or 4b.

If taking or damaging implications exist, the agency must comply with Mont. Code Ann. § 2-10-105, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.

Johnson, Elois

From: Hal Robbins <hrobbins@bison-eng.com>
Sent: Thursday, January 22, 2015 11:44 AM
To: Johnson, Elois
Subject: Public Comments Submittal: MAR Notice No. 17-367
Attachments: BLAQTC Comments to BER (MAR 17-367).pdf

Elois Johnson, Paralegal
Montana Board of Environmental Review

On behalf of the Billings/Laurel Air Quality Technical Committee (BLAQTC) we are pleased to provide the Board of Environmental Review (board) with comments regarding the proposed changes to air quality rules outlined in MAR Notice 17-367. Our comments are attached as a PDF document to this email.

We believe the comments are self-explanatory, but please do not hesitate to phone, email or write if you have any questions or need further clarification. The particulars on where you may reach me (on behalf of BLAQTC), are below.

Thank you for the opportunity to comment on these proposed amendments and changes. We look forward to working with the board and the Department of Environmental Quality (DEQ) in implementing the changes.

Hal Robbins

1400 11th Ave.
Helena, MT 59601
406 442-5768
406 449-6653 – Fax
406 431-0249 – Cell
hrobbins@bison-eng.com

Comments

MAR Notice 17-367

In the matter of the amendment of ARM 17.8.101, 17.8.103, 17.8.201, 17.8.202, 17.8.204, and 17.8.230 pertaining to definitions, incorporation by reference and availability of referenced documents, definitions, incorporation by reference, ambient air monitoring, and fluoride in forage and the repeal of ARM 17.8.206 pertaining to methods and data.

Provided by:
Billings/Laurel Air Quality Technical Committee

January 22, 2015

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1. **General**

   BLAQTC has participated with the Montana Department of Environmental Quality (DEQ) in the measurement of ambient sulfur dioxide concentrations in Yellowstone County for more than 25 years. Our organization has operated multiple ambient air quality stations over this period. There are currently two operating stations in our network: one in the Lockwood area of Billings and the other in Laurel. In order that the data quality remains high and above reproach, the monitoring itself has been conducted under contract with Bison Engineering Inc., under a QAPP approved by the Department. Bison is a 34 year old Montana professional consulting firm whose specialty is air quality. Two additional monitors are operated in the Lockwood area: one is operated by another industry, and the other is operated by DEQ or under its supervision. It should be noted that all monitors are currently indicating attainment.

   Regardless of our comments below, we have enjoyed a successful program of ambient monitoring in Yellowstone County in conjunction with DEQ. We have ourselves, through contract, prepared and submitted a number of Quality Assurance Project Plans (QAPP) which is the general subject of these proposed rules.

   We also want to note that DEQ has previously offered BLAQTC (and others) the opportunity to comment on the 2013 QAPP which is one of the subjects of this board rule adoption proposal. To that end, BLAQTC offered (9/6/2013) a significant set of comments regarding details of the proposed QAPP itself. These 2013 comments were offered in the wake of EPA's designation of a portion of Billings as a federal nonattainment area. The non-attainment designation was contrary to DEQ and the Governor's strong recommendation. The state's position was that the old data used by EPA, even though submitted by DEQ, was unrepresentative of air quality at the time of designation or of future air quality, and that the area was likely to continue to

January 22, 2015

Montana Board of Environmental Review
c/o Elois Johnson, Paralegal
Department of Environmental Quality
1520 E. Sixth Ave.
P.O. Box 200901
Helena, Montana 59620-0901

ejohnson@mt.gov

Re: Comments to MAR Notice No. 17-367

In the matter of the amendment of ARM 17.8.101, 17.8.103, 17.8.201, 17.8.202, 17.8.204, and 17.8.230 pertaining to definitions, incorporation by reference and availability of referenced documents, definitions, incorporation by reference, ambient air monitoring, and fluoride in forage and the repeal of ARM 17.8.206 pertaining to methods and data.

Montana Board of Environmental Review:

On behalf of the Billings/Laurel Air Quality Technical Committee (BLAQTC) we are pleased to provide the Board of Environmental Review (board) with comments regarding the proposed changes to air quality rules outlined in MAR Notice 17-367. BLAQTC is an informal organization whose members consist of the following Billings and Laurel industries: ExxonMobil, Phillips 66, PPL Montana, Montana Sulphur & Chemical Co., CHS and Western Sugar. The organization actively participates in ambient air monitoring and in issues relating to ambient sulfur dioxide levels in the Billings and Laurel area. BLAQTC operates two ambient monitoring sites in Yellowstone County.

We note that Hal Robbins, representing BLAQTC, appeared at the scheduled public hearing on 1/15/15. However, upon learning that the hearings examiner was not able to attend, he waived the opportunity to speak at the hearing in favor of this written testimony.

We appreciate the opportunity to provide you with our comments and suggestions regarding the adoption, repeal or amendment as specified in the MAR notice. Our comments and suggestions follow as an attachment to this letter.

Thank you again for the opportunity to present our views regarding this proposed board action.

Sincerely,

Hal Robbins; for
BLAQTC

show attainment of the 2010 NAAQS if representative data from 2011 forward were used. BLAQTC members believed that a portion of the old data EPA used for that designation suffered quality control issues rendering that data questionable for use in a designation of such long-reaching consequence.[1] Our comments to the QAPP were directed at suggesting a more rigorous, less discretionary, program that better defines both valid and invalid data so that only the highest quality data is submitted for EPA's use.

DEQ eventually opted not to take a more prescriptive approach. They chose, instead, to mirror the requirements established in EPA guidance documents, which leave data acceptable or not acceptable for certification essentially at the discretion of EPA. EPA's own guidance, however, suggests that states may implement data quality controls more rigorous than the federal minimums. More specifically, EPA has indicated that agencies should submit data only of high quality. EPA noted that once data is submitted, even if it is flagged or questionable, it may be used by decision-makers in ways not foreseen by the submitting agency. BLAQTC notes that this could possibly include erroneous SIP calls, enforcement actions, and erroneous area designations.

While we would have preferred a different direction, we understand DEQ's decision. We also understand that the lack of more specificity in the 2013 QAPP does not (expressly) prevent DEQ, nor any other entity, from implementing quality control procedures that go beyond the minimums.

2. **Reference Error – p. 3032**

The board proposes to remove all references to a number of EPA documents relating to the measurement and reporting of ambient air quality data. More specifically, this proposed change would delete ARM 17.8.103(1)(o) in its entirety. The language to be deleted is:

> ~~(o) the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume I: A Field Guide to Environmental Quality Assurance (EPA-600/R-94/038a, revised April 1994); Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part 1 Ambient Air Quality Monitoring Program Quality System Development (EPA-454/R-98/004, revised August 1998); Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III: Stationary Source Specific Methods (EPA-600/R-94/038c, revised September 1994); and Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Methods (EPA-600/R-94/038d, revised March 1995), a federal manual pertaining to sampling and data collection, recording, analysis, and transmittal requirements~~.

The Board provides the following "REASON" for this proposal:

[1] The data problems included missing or late audits, failed audit criteria, inappropriate measurement ranges, expired test gases and use of uncertified flow standards. BLAQTC was concerned that none of these issues resulted in data invalidation, and thus questioned why such quality assuring efforts are made if their results are deemed unnecessary when they are not performed successfully.

"The board is proposing to delete . . . Volumes I, II, and IV are already appropriately referenced in the applicable federal regulations incorporated by reference in ARM Title 17, chapter 8, subchapter 1. . . ." (emphasis added)

We are not able to confirm the assertion that these volumes (I, II and IV) are in fact already incorporated by reference in subchapter 1. The proposed change itself is in subchapter 1. Within subchapter 1, the board has incorporated various federal documents including 40 CFR 50 and 53 as they relate to ambient air quality data collection and reporting. However, §50 and §53 only briefly, if at all, make mention of any of the three volumes. Therefore, they do not appear to be incorporated as referenced by federal regulation as is intended by the board.

Title 40 CFR 58, which is not incorporated by reference either currently or proposed, makes numerous references to these volumes. Additionally, §58 is referenced in subchapter 2 of the air quality regulations (contained in Chapter 8). It appears to us that the problem could be resolved by either:

- Revising the "REASON" language by stating " ... applicable federal regulations incorporated by reference in ARM Title 17, chapter 8, subchapter ~~1~~2 . . . .": (subchapter 2 already contains an incorporation by reference of 40 CFR 58); or
- Adding language in subchapter 1 to incorporate by reference 40 CFR 58.

3. Clarification/Intent – Department Monitoring Program – p. 3033

BLAQTC seeks clarification from the board relating to the following language in the proposed amendment to 17.8.202:

". . . the board adopts and incorporates by reference the following:
(a) The Montana Ambient Air Monitoring Program Quality Assurance Project Plan (~~November 1996 ed.~~ 2013), a ~~Department of Environmental Quality~~ department manual ~~specifying~~ that specifies ambient air sampling and data collection, recording, analysis, and transmittal requirements that pertain only to the department's monitoring program; . . ."

We seek clarification as to whether the phrase "pertain only to the department" applies to the 2013 QAPP as a whole or only to that portion of the sentence relating to "transmittal requirements." Is the board adopting only that portion of the QAPP that pertains to the department or is the board adopting the QAPP generally for all monitoring except for that narrow portion of the QAPP that references transmittal requirements? We can see that transmittal requirements might be different for departmental program; we do not see why other requirements addressing data quality and integrity would pertain only to or differently to a departmental program.

4. **Clarification/Intent – PSD Monitoring Guideline – When Required – p. 3033 - 3035**

The proposed rules contain several references and requirements to the EPA document "EPA Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), EPA-450/4-87-007 (May 1987)" (PSD-Guideline). More specifically, this 1987 document is discussed or included in the proposed rule in the following areas:

a. **Incorporation by reference (p. 3033)**
The MAR notice proposes to incorporate the guidance document (PSD-Guideline) by reference in ARM 17.8.202(b).

BLAQTC has concern that the board is, in fact, converting what was written as and is widely used as a monitoring "guideline" into a "rule." This guidance document is not a federal regulation or a federal requirement to do so. This guideline is indeed widely used for PSD pre-monitoring purposes. However, even then, it is also widely understood that it is a guideline, not a rule. As such, adjustments have been made where necessary or appropriate. DEQ, the Board and the regulated community almost certainly may suffer some unintended loss of discretion and flexibility if this guidance is adopted as a rule that requires compliance.

b. **Consistency and clarity (p. 3034)**
Among the rationale for incorporating this document by reference the following explanation is noted in the MAR:

> *". . . The board is proposing to adopt and **require compliance** with the {PSD} guidelines to provide as much consistency and clarity as possible to entities developing a monitoring project. . ."*

Taken by itself, and considering that all other EPA guideline documents are proposed to be stricken from this (incorporation by reference) rule, one is left with the impression that the only EPA ambient monitoring document now in the record is the 1987 PSD-Guideline. That, coupled with the rationale sentence above, might further imply that the only acceptable monitoring program is one that in fact meets the PSD-Guideline (which is now arguably a rule, not a guideline per a. above). This would appear true even for non-PSD purposes. Further, if the PSD-Guideline contains ambiguous or contradictory recommendations, as guidance may and often does, it may become problematic to perform compliant monitoring.

BLAQTC assumes that it is not the board's intent to require absolute conformity to the PSD-guideline for all ambient monitoring projects. We ask that the board clarify this understanding that this guideline is only applicable for monitoring conducted in support of a PSD permit application, and that its content is to be construed as **guidance** rather than as a set of rigid requirements for acceptable monitoring.

c. **Confirm PSD-Guideline Requirement for Monitoring (p. 3035)**
The incorporation by reference notwithstanding, the board specifically requires the use of the PSD-Guideline in its proposal to modify ARM 8.204(2) as noted below (in part):

> *"(2) ~~Except as otherwise provided in this chapter, or unless~~ . . . Any entity performing ambient air monitoring within the state of Montana for a purpose listed in (1) shall perform it according to a Quality Assurance Project Plan (QAPP) prepared to satisfy the applicable requirements of 40 CFR Parts 50, 53, and 58, and, if performed to comply with subchapter 8 of this chapter, the EPA Ambient Monitoring Guidelines for PSD, which are adopted by reference in ARM 17.8.202. . . "*

Similar to the comments in b. above, we seek clarification that the board is not requiring the use of the PSD-Guideline for each and every (regulatory) ambient monitoring purpose. Rather, we assume the PSD-guideline document is only applicable when the monitoring purpose regards a PSD permit application, and that the PSD-Guideline document's status as a guideline rather than as a regulation is expressly maintained.

5. **DEQ Approval of QAPP - p. 3035**

The proposed rules require [ARM 17.204(3)(b)] that any entity engaged in ambient monitoring for a regulatory purpose [see §204(1)(a) through (d)] must submit to DEQ a project-specific QAPP. That document must then be approved by DEQ. The MAR notice makes the following comment regarding approval (p. 3037):

> *"The proposed new language in (3)(b) would incorporate the requirement from 40 CFR Part 58 that a project-specific QAPP be submitted to and approved by the department* ***before monitoring*** *begins." (emphasis added)*

It is obvious that a quick turnaround of such a submitted document to DEQ is critical to any project development or compliance purpose. Historically, DEQ has reviewed and responded to QAPP submittals on a timely basis. BLAQTC and others conducting monitoring appreciate that assistance.

Nonetheless, we find it inappropriate that a required QAPP could be submitted without a defined timeline for an essential response. We do not think it unreasonable to ask that a time limit be applied to DEQ's review and approval of such a required document. Absent approval, monitoring cannot be done, and absent monitoring the underlying permitting or designation process cannot proceed. We recommend the board add a requirement that DEQ approve, conditionally approve or disapprove such a document within 15 days of its submittal. We think this is sufficient time for review given DEQ's extensive experience in ambient monitoring and the relatively well defined requirements in preparing monitoring plans. (It may be noted that any such entity would normally have discussed the basic concepts of the monitoring program such as acceptable location(s) and pollutant(s) well in advance of such a

submittal.) We suggest language along the lines below (written as though the proposed rule were already in place):

> ARM 17.8.204(3)(b): any other entity, it must be performed in compliance with a project-specific QAPP that has been submitted to and approved by the department. The department must approve, conditionally approve or disapprove any such submitted plan within 15 days of its submittal.

6. **Agreement & Support – Non-DEQ Ambient Monitoring - pp. 3033 - 3035**

BLAQTC would like to note and fully support the board's efforts to foster the use of ambient data collected by non-DEQ entities in support of regulatory purposes, especially attainment and nonattainment designations. We believe that such data gathered in accordance with prescribed quality control measures (defined by the QAPP) can and should be used to define an area's status of compliance with the ambient air quality standards (40 CFR 50 and subchapter 2). We further believe that given the adoption of the revised QAPP for the department's own monitoring program, the board is providing a clear template for the relevant minimal requirements for any non-departmental QAPP.

As the board and DEQ are aware, the ability to use such non-DEQ data was an important topic when it came to the initial designation area for Billings regarding the SO_2 National Ambient Air Quality Standards (NAAQS). It will also be important for upcoming actions related to that initial area designation, and for ultimately obtaining the proper area designation of attainment in the formal re-designation process. We believe that monitor data collected in addition to department monitoring will continue to be of importance to these issues, whether from the existing stations or from new or relocated stations. We support the use of the non-DEQ collected data, of quality equaling that required for departmental monitoring for these, and other, designation purposes.

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

In the matter of the amendment of ARM 17.8.101, 17.8.103, 17.8.201, 17.8.202, 17.8.204, and 17.8.230 pertaining to definitions, incorporation by reference and availability of referenced documents, definitions, incorporation by reference, ambient air monitoring, and fluoride in forage and the repeal of ARM 17.8.206 pertaining to methods and data	NOTICE OF AMENDMENT AND REPEAL (AIR QUALITY)

TO: All Concerned Persons

1. On December 24, 2014, the Board of Environmental Review published MAR Notice No. 17-367 regarding a notice of public hearing on the proposed amendment of the above-stated rules at page 3031, 2014 Montana Administrative Register, Issue Number 24.

2. The board has amended ARM 17.8.101, 17.8.103, 17.8.201, and 17.8.230 and repealed ARM 17.8.206 exactly as proposed and has amended ARM 17.8.202 and 17.8.204 as proposed, but with the following changes, stricken matter interlined, new matter underlined:

17.8.202 INCORPORATION BY REFERENCE (1) For the purposes of this subchapter, the board adopts and incorporates by reference the following:

(a) remains as proposed.

~~(b) EPA Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), EPA-450/4-87-007 (May 1987);~~

(c) through (e) remain as proposed, but are renumbered (b) through (d).

(2) through (4) remain as proposed.

17.8.204 AMBIENT AIR MONITORING (1) through (1)(d) remain as proposed.

(2) Any entity performing ambient air monitoring within the state of Montana for a purpose listed in (1) shall perform it according to a Quality Assurance Project Plan (QAPP) prepared to satisfy the applicable requirements of 40 CFR Parts 50, 53, and 58., ~~and, if~~ If the ambient air monitoring is to be performed to comply with subchapter 8 of this chapter, an entity shall also consider the EPA Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), ~~which are adopted by reference in ARM 17.8.202~~ EPA-450/4-87-007 (May 1987).

(3) through (b) remain as proposed.

(4) The department shall notify the entity in writing of approval, conditional approval, or disapproval within 60 days after receiving a project-specific QAPP required by (3)(b). If the department receives additional information in response to a notice of conditional approval or disapproval, the 60-day review period begins again.

(4) remains as proposed, but is renumbered (5).

3. The following comments were received and appear with the board's responses:

COMMENT NO. 1: Commenter discussed the history of conducting ambient air monitoring in the Billings/Laurel area and reiterated comments previously submitted to the department on the department's 2013 Quality Assurance Project Plan (QAPP), incorporated by reference in this rulemaking, as it related to area designations for the 2010 revised National Ambient Air Quality Standards for sulfur dioxide (SO_2). In the previously submitted comments on the 2013 QAPP, the commenter discussed the desire that the department use a more rigorous quality assurance/quality control (QA/QC) program than the minimum national standard used by the federal government. However, in the comments submitted on the subject rulemaking, the commenter stated that the commenter understood the decision to maintain the use of the national standard.

RESPONSE: Through this rulemaking, the board is proposing to establish a set of nationally-applied, scientifically-based QA/QC requirements as the minimum standard for all regulatory ambient air monitoring performed in the state of Montana. The board's adherence to the Environmental Protection Agency's (EPA's) national standard will promote consistency and eliminate bias and subjectivity. Data collected consistent with this standard have been upheld by the department and by the EPA regional office and national headquarters. Therefore, no changes are being made to the rule in response to this comment.

COMMENT NO. 2: Commenter noted that the board's reference, in the explanation of proposed amendments to ARM 17.8.103(1), to documents being incorporated by reference in ARM Title 17, chapter 8, subchapter 1 was inaccurate. In the discussion of the reason for the amendments to ARM 17.8.103, the board referred to the incorporation by reference of 40 CFR Part 58 in ARM Title 17, chapter 8, subchapter 1. That particular regulation is not incorporated by reference in subchapter 1, but is incorporated in subchapter 2. The commenter suggested that the board might have meant to refer instead to subchapter 2 and asked for clarification.

RESPONSE: The reference to subchapter 1 was indeed a mistake and the board intended to refer instead to the incorporation by reference in ARM 17.8.202. Because the text of the proposed rule was correct, no change to the rule is necessary.

COMMENT NO. 3: Commenter stated that the proposed language in ARM 17.8.202(1)(a) is unclear and asked for clarification of whether the phrase "pertain only to the department's monitoring program" applies to the department's QAPP as a whole or only to the "transmittal requirements."

RESPONSE: The phrase in question applies to all of the requirements listed, including "ambient air sampling and data collection, recording, analysis, and transmittal requirements," and limits the application of those requirements to

monitoring conducted by the department. The board believes that no change to the rule is necessary.

COMMENT NO. 4: Commenter expressed concern that incorporation by reference of the "EPA Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)" in ARM 17.8.202(1)(b) will convert those Guidelines from guidance to rule, which is not appropriate.

RESPONSE: The board agrees with the commenter's concern that the PSD Guidelines were not intended to be mandatory. The board has not adopted the Guidelines through incorporation by reference in ARM 17.8.202. In response to this comment, the board has amended ARM 17.8.204(2), as shown above, to require an entity performing monitoring to comply with PSD requirements to consider the Guidelines; the use of the guidelines would not be mandatory.

COMMENT NO. 5: Commenter expressed concern that the incorporation by reference of the PSD Guidelines in ARM 17.8.202(1)(b) will require all ambient air monitoring, not just PSD monitoring, to comply with the PSD Guidelines. The commenter asked for clarification of the board's intent in this regard.

RESPONSE: As described in the Response to Comment No. 4, the board has not adopted the PSD Guidelines in ARM 17.8.202. The board has adopted wording for ARM 17.8.204(2) that makes it clear that only an entity performing ambient air monitoring to comply with PSD requirements is required to consider the PSD Guidelines.

COMMENT NO. 6: Commenter noted that the proposed amendments require that the department approve a QAPP before monitoring may begin, but the rule does not provide a timeline by which approval or disapproval must occur. The commenter stated that quick turnaround of a QAPP document is critical to project development and noted that the department has historically responded to such submittals in a timely fashion. The commenter suggested adding language to ARM 17.8.204(3)(b) requiring the department to approve, conditionally approve, or disapprove a QAPP within 15 days of its submittal.

RESPONSE: The board recognizes that the department has historically acted in good faith and in a timely manner and sees no reason why such behavior should not continue into the future. In the past, the department has worked with entities to review QAPP documents as expeditiously as possible to meet project timelines. This has often included significant coordination and discussion in advance of an entity submitting a document for approval. In light of the comment, the board agrees that a reasonable time limit would provide needed definition for those entities attempting to establish project planning timelines in the efficient conduct of their business. The board notes that time limits are applied to the submission and review of various required information and that the approval of a QAPP document should be treated in a similar manner. However, the 15-day limit suggested by the commenter would be impracticable given the length and complexity of such documents and the lack of any requirement that an entity confer with the department about its contents in advance of submittal. The board believes

a 60-day review period is reasonable. The board has amended ARM 17.8.204, as shown above, in response to this comment.

COMMENT NO. 7: Commenter supports the board's efforts to amend the ambient air monitoring quality assurance rules and believes the proposed rules provide a clear template for non-departmental quality assurance requirements.

RESPONSE: The board acknowledges the comment.

4. No other comments or testimony were received.

Reviewed by: BOARD OF ENVIRONMENTAL REVIEW

_____ By: _____

JOHN F. NORTH
Rule Reviewer

ROBIN SHROPSHIRE
Chairman

Certified to the Secretary of State, _____, 2015.

Carol E. Schmidt
Special Assistant Attorney General
Department of Environmental Quality
P.O. Box 200901
1520 E. Sixth Avenue
Helena, Montana 59620-0901
Attorney for Department

James C. Bartlett
322 2nd Avenue West
P.O. Box 2819
Kalispell, MT 59903-2819
Attorney for Dennis Rasmussen

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

IN THE MATTER OF: VIOLATIONS OF THE MONTANA PUBLIC WATER SUPPLY LAWS BY TRAILER TERRACE MOBILE PARK, LLC, DENNIS RASMUSSEN AT TRAILER TERRACE, PWSID #MT000025, GREAT FALLS, MONTANA [FID 2149]	Case No. BER 2012-11 PWS Stipulation for Dismissal

COME NOW the parties and stipulate, pursuant to Rule 41(a), M.R.Civ.P., to the dismissal of this appeal. The parties have reached a resolution of the matters at issue, agreeing that Dennis Rasmussen should be removed as a responsible party from the *Notice of Violation and Administrative Compliance and Penalty Order* dated September 13, 2012. Appellant therefore withdraws his appeal and request for hearing. The parties request that the Board issue an Order dismissing this matter with prejudice, with each party to bear its own costs.

STATE OF MONTANA Department of Environmental Quality	APPELLANT Dennis Rasmussen
By: Carol Schmidt	By: James C. Bartlett
Carol E. Schmidt Attorney for Department	James C. Bartlett Attorney for Dennis Rasmussen
Date March 2, 2015	Date 2/27/15

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

IN THE MATTER OF: VIOLATIONS OF THE MONTANA PUBLIC WATER SUPPLY LAWS BY TRAILER TERRACE MOBILE PARK, LLC, DENNIS DESCHAMPS AND DENNIS RASMUSSEN, AT TRAILER TERRACE, PWSID#MT0000025, GREAT FALLS, CASCADE COUNTY, MONTANA. (FID#2149)	Case No. BER 2012-18 PWS ORDER OF DISMISSAL

The parties have filed a Stipulation for Dismissal pursuant to Montana Rule of Civil Procedure 41(a) stating that Appellant Dennis Rasmussen has withdrawn its appeal and its request for a hearing in this matter. As provided in the parties' Stipulation for Dismissal,

IT IS HEREBY ORDERED THAT this appeal is dismissed with prejudice. Each party shall bear its own costs.

DATED this _____ day of _____, 2015.

_____
Robin Shropshire, Chairman
Montana Board of Environmental Review

CERTIFICATE OF SERVICE

I hereby certify that I caused a true and accurate copy of the foregoing Order of Dismissal to be mailed to:

Mr. James C. Bartlett
Attorney for Appellant
322 -2nd Avenue West
P.O. Box 2819
Kalispell, MT 59903-2819

Ms. Ben Reed, Hearing Examiner
Agency Legal Services Bureau
1712 Ninth Avenue
P.O. Box 201440
Helena, MT 59620-1440

I further certify that I caused a true and accurate copy of the foregoing Order of Dismissal to be served by hand delivery to:

Ms. Carol E. Schmidt, Staff Attorney
Department of Environmental Quality
1520 E. Sixth Avenue, Metcalf Building
P.O. Box 200901
Helena, MT 59620-0901

DATED:_____

_____
Joyce Wittenberg, Secretary
Montana Board of Environmental Review