

Draft, September 6, 2023

Disclaimer:

The initial draft rule is being provided for consultation purposes with the Nutrient Work Group. This preliminary draft document is for review and may undergo changes based upon Nutrient Work Group input or other considerations prior to proposal through formal rulemaking procedures.

The formal rulemaking process under Title 2, Chapter 4, Part 3, MCA, which includes a notice of proposed rulemaking, hearing, and formal comment period has not yet commenced. Prior to final rule adoption, the public will be afforded the opportunity to submit data, views, or arguments orally or in writing and DEQ must fully consider all public comments on the proposed rule.

NEW RULE I. TRANSLATION OF NARRATIVE NUTRIENT STANDARDS. (1) Narrative nutrient standards are found at ARM 17.30.637(1)(e). The department translates the narrative standards at ARM 17.30.637(1)(e) as provided in Part I of Department Circular DEQ-15 (December 2023 edition). (2) The department adopts and incorporates by reference Department Circular DEQ-15, entitled "Translation of Narrative Nutrient Standards and Implementation of the Adaptive Management Program" (December 2023 edition), which provides procedures and requirements for the translation of narrative nutrient standards and implementation of the Adaptive Management Program. Copies of Department Circular DEQ-15 may be obtained from the Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901.

NEW RULE II. IMPLEMENTATION OF THE ADAPTIVE MANAGEMENT PROGRAM. (1) Owners or operators of point sources may choose to enter the Adaptive Management Program to achieve nutrient standards and to address nutrients in a specific watershed. To enter the Adaptive Management Program, the permittee must provide an Adaptive Management Plan (AMP) to the department for review and approval. (2) MPDES permits may include limitations and conditions consistent with the assumptions and elements of department-approved AMPs. Related MPDES permit limitations and conditions must be derived to achieve narrative nutrient standards as provided in NEW RULE I.

(3) Adaptive Management for Wadeable Streams and Medium Rivers.

(a) The AMP must contain, at a minimum, the following:

- (i) monthly effluent monitoring for total phosphorus (TP) and total nitrogen (TN) concentrations;
- (ii) a monitoring plan for assessing near field response variables and causal variables downstream and upstream of the facility, consistent with Circular DEQ-15 (December 2023 Edition);
- (iii) a plan for examining all possible pollutant minimization activities which may reduce nutrient concentrations in the effluent including, but not limited to:

- (A) documentation, to be included in the Operations and Maintenance Manual, of process control strategies identified and implemented through optimization;
- (B) ongoing training of operations staff in advanced operational strategies;
- (C) minor changes to infrastructure to complement and further advance operational strategies;

and

- (D) implementation of pollutant trading and the reuse of effluent, if feasible;
- (iv) documentation of any nutrient reduction activities for the broader watershed, if any are planned; and
- (v) A plan for reporting progress to the department on an annual basis. The annual progress report must be submitted to the department by March 31st of each year and shall include, at a minimum:

- (A) A description of any deviations from the AMP, and planned corrective actions;
 - (B) A summary of near field monitoring data;
 - (C) A description of any facility upgrades and/or reductions achieved in nutrient effluent concentrations resulting from pollutant minimization activities; and
 - (D) A description of any actions to further reduce effluent nutrient concentrations that will be implemented in the current year.
- (b) After an AMP has been received and approved, the department shall determine if prioritization of phosphorus reduction is appropriate for both the point source and the receiving water body. To determine if it is appropriate to prioritize phosphorus reductions from a point source and in a receiving water body, the department may consider:
- (i) existing controls on point and nonpoint sources of pollution;
 - (ii) the presence and variability of the pollutant(s) in the effluent;
 - (iii) dilution of the effluent in the receiving water, if appropriate;
 - (iv) monitoring and assessment information for the receiving waterbody collected by the department or the permittee;
 - (v) whether phosphorus or nitrogen limits plant and algal growth in the waterbody;
 - (vi) the ratio of nitrogen to phosphorus in the effluent and instream; and
 - (vii) any other credible, pertinent data available, including data provided in the AMP.
- (c) If the department determines prioritization of phosphorus reduction is appropriate under (3)(b), then the department shall develop and implement TP effluent limits by translating the narrative nutrient standards for the ecological region in which the facility is located. The department shall derive a TP effluent limit that protects the most sensitive beneficial use in the waterbody. TP effluent limits apply during a growing season as provided in Circular DEQ-15 (December 2023 edition), unless a lake or reservoir is affected by the point source, or another downstream use requires protection in which case the limits may apply year-round.
- (i) TP reductions may come from facility upgrades, watershed nutrient reduction projects, or both, so long as the AMP documents the activities, and their effectiveness is addressed in the annual progress report.
- (d) The department may find, based on TP reductions required under (3)(c), associated water quality and response variable monitoring, or other credible department data, that beneficial uses of the receiving waterbody are protected.
- (e) If the department concludes under (3)(b) and (c) that the prioritization or limitation of phosphorus alone is not appropriate and that a discharge causes, has reasonable potential to cause, or contributes to an in-stream excursion above the narrative nutrient standards in NEW RULE I, then the department shall:
- (i) Develop effluent limits for TN and/or TP by translating the narrative nutrient standards for the ecological region in which the facility is located. The department shall derive a TN and/or TP effluent limit that protects the most sensitive beneficial use in the waterbody. The MPDES permit must be consistent with the assumptions and elements of the department approved AMP under 3(a).
 - (ii) Require a permittee or multiple permittees to develop and include in their AMP a watershed plan describing how nutrients will be reduced in the watershed. To achieve the effluent limits developed under (e)(i), the watershed plan must:
 - (A) identify and quantify all major sources of nutrient contributions in the watershed in which the facility is located;
 - (B) identify all partners that will assist in implementing the nutrient reductions including each partner's level of support;

(C) document action items for the reduction of nutrients in the watershed and specific goals for reductions including expected timelines to achieve the reductions and anticipated load reduction based on sound scientific and engineering practices;

(D) demonstrate the ability to fund the watershed plan either individually, or in conjunction with other permittees and nonpoint sources, or other partners, including municipal and county governments, in the watershed;

(E) if partners are used to implement nutrient reduction actions in lieu of permittees, the watershed plan must include enforceable written agreements reflecting commitments by partners to implement nutrient reduction actions and must identify the period of commitment;

(F) include continued or expanded monitoring of response variables and water quality as performance indicators to determine if the plan is effective in achieving compliance with narrative nutrient standards;

(G) identify the timeframes for completing and submitting each component of the watershed plan under (3)(e)(ii)(A) through (F);

(H) be submitted to the department annually by March 31st, along with the progress report in (3)(a)(v), documenting progress and effectiveness of the watershed plan;

(I) be approved by the department; and

(J) in addition to this rule, be subject to requirements contained in Department Circular DEQ-15 (December 2023 edition).

(f) Compliance with the narrative nutrient standards shall be determined at a point or points downstream of the facility established consistent with the requirements in Department Circular DEQ-15 (December 2023 edition).

(4) Adaptive Management for Large Rivers. The AMP must meet the requirements in (3)(a) above and, as appropriate, additional requirements in (4)(a) below.

(a) The department or permittee(s) may develop a mechanistic water quality model for a large river. A calibrated and validated model may be used to derive phosphorus limits for use in MPDES permits that protect beneficial uses along the modeled reach, achieve narrative nutrient standards, and achieve other applicable water quality standards related to nutrients (dissolved oxygen and pH). Permittee-developed mechanistic models must be documented in the AMP. Based on modeling, each MPDES permit limit will be allocated considering each facility's relative load, its current treatment for nutrients, estimated cost for projected facility upgrades, the limits of technology, and other considerations as appropriate.

(b) For large rivers where a model has not been developed, the department shall derive MPDES permit limits for phosphorus and/or nitrogen, where necessary, based on best available information regarding the protection of beneficial uses, achieving narrative nutrient standards, and achieving other applicable water quality standards related to nutrients (dissolved oxygen and pH).

(c) TP effluent limits apply during a growing season as provided in Circular DEQ-15 (December 2023 edition), unless a lake or reservoir is affected by the point source(s), or another downstream use requires protection in which case the limits may apply year-round.

(d) The nutrient reductions required under (4)(a) and (4)(b) will be evaluated using data collected in each river by the department and/or permittee(s) to confirm that beneficial uses are protected, applicable water quality standards are achieved, and to determine if further reductions for phosphorus and/or nitrogen are needed. Sampling methods must be documented in the AMP consistent with requirements in Circular DEQ-15 (December 2023 edition).

(e) A permittee or multiple permittees shall develop a watershed plan for the reduction of nutrients in the watershed if, based on data and information in (4)(a) and/or updated modeling, the department

concludes that phosphorus control alone is insufficient to protect beneficial uses and water quality standards. The watershed plan must:

- (i) identify and quantify all sources of nutrient contributions in the watershed in which the facility or facilities are located;
- (ii) identify all partners that will assist in implementing the nutrient reductions including each partner's level of support;
- (iii) document action items for the reduction of nutrients in the watershed and specific goals for reductions including expected timelines to achieve the reductions and an anticipated load reduction based on sound scientific and engineering practices;
- (iv) demonstrate the ability to fund the watershed plan either individually, or in conjunction with other permittees and nonpoint sources, or other partners, including municipal and county governments, in the watershed;
- (v) if partners are used to implement nutrient reduction actions in lieu of permittees, the watershed plan must include enforceable written agreements reflecting commitments by partners to implement nutrient reduction actions and must identify the period of commitment;
- (vi) include continued or expanded monitoring of the response variables as performance indicators to determine whether the plan is effective in achieving compliance with the narrative nutrient standards;
- (vii) identify the timeframes for completing and submitting each component of the watershed plan under (4)(e)(i) through (vi);
- (viii) be submitted to the department annually by March 31st, along with an annual progress report documenting progress and effectiveness of the watershed plan;
- (ix) be approved by the department; and
- (x) in addition to this rule, be subject to requirements contained in Department Circular DEQ-15 (December 2023 edition).

(f) Compliance with the narrative nutrient standards, and other applicable water quality standards per (4)(a) and (b), shall be determined at a point or points downstream of the facility or facilities established consistent with the requirements in Department Circular DEQ-15 (December 2023 edition).

(5) A permittee under the adaptive management program is not precluded from pursuing, at any time, other regulatory compliance options including, but not limited to variances, compliance schedules, reuse, trading, recharge, or land application.

(6) The department adopts and incorporates by reference Department Circular DEQ-15, entitled "Translation of Narrative Nutrient Standards and Implementation of the Adaptive Management Program" (December 2023 edition), which provides procedures and requirements for the translation of narrative nutrient standards and the implementation of the adaptive management program. Copies of Department Circular DEQ-15 may be obtained from the Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901.

Notes:

DEQ will define medium river, large river, wadeable stream and far and near field sites in ARM 17.30.1304 or in Circular DEQ-15.

This rule package is intended to replace ARM 17.30.1388. As a result, ARM 17.30.1388 will be repealed as part of the overall rule package promulgated pursuant to SB 358.