

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. DEQ will provide initial draft versions of DEQ Circular DEQ-15 and related guidance in the upcoming weeks.

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 (or amended ARM 17.30.1388). IMPLEMENTATION OF NARRATIVE NUTRIENT STANDARDS THROUGH THE ADAPTIVE MANAGEMENT PROGRAM. (1) MPDES permits may include limitations and conditions consistent with the assumptions and requirements of individual adaptive management plans (AMPs) as approved by the department. MPDES permit limitations and conditions must be derived to achieve narrative nutrient standards at ARM 17.30.637(1)(d) and (e).

(2) Adaptive Management for Wadeable Streams and Medium Rivers. If a point source has reasonable potential to cause or contribute to an in-stream excursion above the narrative nutrient standards at ARM 17.30.637(1)(d) and (e), then the department shall determine if prioritization of phosphorus reduction is appropriate for both the point source and the receiving water body.

(a) To determine if it is appropriate to prioritize phosphorus reductions from a point source and in a receiving water body, the department shall consider:

- (i) existing controls on point and nonpoint sources of pollution;
- (ii) the pollutant(s) present in the discharge and the variability of the pollutant or pollutant parameter 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; and
- (vii) any other credible, pertinent data that are available.

(b) If the department determines prioritization of phosphorus reduction is appropriate under (2)(a), then the department shall develop and implement total phosphorus (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 applicable ecological region. Total phosphorus effluent limits apply during a growing season as provided in Circular DEQ-15, 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. In addition to the effluent limit for TP, the MPDES permit must also be consistent with the assumptions and requirements of the department approved AMP, including:

- (i) effluent and instream monitoring for TP and total nitrogen (TN) concentrations;
- (ii) a monitoring plan for assessing near field response variables downstream and upstream of the facility; and
- (iii) the requirement for each facility to examine all possible pollutant minimization activities which may

reduce nutrient concentrations in the effluent. These activities shall include, but are not limited to:

- (A) documentation, 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) In examining all possible nutrient minimization activities in (iii), permittees are advised to consider any current guidance developed by the department.

(c) If the department concludes under (2)(a) and (b) 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 at ARM 17.30.637(1)(d) and (e), 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 applicable ecological region. The MPDES permit must be consistent with the assumptions and requirements of the department approved AMP.

- (ii) To achieve the effluent limits developed under (c)(i) a permittee or multiple permittees shall develop an implementation plan for the reduction of nutrients in the watershed. The implementation plan must:

- (A) identify and quantify all 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 the partner's level of support and documentation of commitment to nutrient reductions;

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

- (D) demonstrate the ability to fund the implementation plan either individually, or in conjunction with other permittees and nonpoint sources, or other partners, including municipal and county governments, in the watershed; the implementation plan must include any contracts or written agreements reflecting commitments by partners to implement nutrient reduction actions and must identify the period of commitment;

- (E) include continued and, potentially, expanded monitoring of response variables and thresholds and water quality as performance indicators for determining whether the actions identified and implemented in the plan are effective in achieving compliance with the narrative nutrient standards;

- (F) identify the timeframes for completing and submitting each of the above components of the implementation plan;

- (G) require the permittee to submit, at a minimum, annual reports that document progress on the implementation plan;

- (H) be approved by the department; and

- (I) in addition to this rule, implementation plans are subject to requirements contained in Department Circular DEQ-15 (September 2022 edition).

(d) the department may find, based on TP reductions required under (2)(b) and associated response variable monitoring or other credible department data, that beneficial uses are protected and narrative nutrient standards are achieved.

(3) Adaptive Management for Large Rivers. The department may develop a mechanistic water quality model for the state's large rivers.

(a) Each calibrated and validated model must be used to derive phosphorus limits for MPDES permits along the modeled reach which will protect beneficial uses, achieve the narrative nutrient standards at ARM 17.30.637(1)(d) and (e), and achieve other applicable water quality standards (dissolved oxygen and pH). Based on the model, each MPDES permit limit will be allocated considering each facility's relative load, its current treatment for nutrients, and 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 and achieving water quality standards.

(c) The nutrient reductions required under (3)(a) and (3)(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.

(d) A permittee or multiple permittees shall develop an implementation plan for the reduction of nutrients in the watershed if, based on data and information in (3)(c) and updated modeling, the department concludes that phosphorus control alone is insufficient to protect beneficial uses and/or water quality standards are not being achieved. The implementation 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 the partner's level of support and documentation of commitment to nutrient reductions;

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

(iv) demonstrate the ability to fund the implement the plan either individually, or in conjunction with other permittees and nonpoint sources, or other partners, including municipal and county governments, in the watershed; the implementation plan must include any contracts or written agreements reflecting commitments by partners to implement nutrient reduction actions and must identify the period of commitment;

(v) include continued and, potentially, expanded monitoring of the response variables and thresholds as performance indicators for determining whether the actions identified and implemented in the plan are effective in achieving compliance with the narrative nutrient standards;

(vi) identify the timeframes for completing and submitting each of the above components of the implementation plan;

(vii) require the permittee to submit, at a minimum, annual reports that document progress on the implementation plan;

(viii) be approved by the department; and

(ix) in addition to this rule, implementation plans are subject to requirements contained in Department Circular DEQ-15 (September 2022 edition).

(4) A permittee under the adaptive management program is not precluded from pursuing other regulatory compliance options including but not limited to a variance, a compliance schedule, reuse, trading, recharge, or land application.

(5) The department adopts and incorporates by reference Department Circular DEQ-15, entitled “Implementation of Narrative Nutrient Standards through Adaptive Management” (September 2022 edition). 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.

DEQ intends to develop guidance on qualitative reasonable potential analyses and is currently evaluating proposals on this topic.

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