

technical review, the department is planning to implement the most promising methods in cooperation with several Montana communities starting in 2015. Resulting changes in water quality will be monitored and reported. The results of this work will help guide other communities in their selection of lagoon best management practices and/or alternative approaches to reducing these pollutants and will inform the department in the triennial review of the general variance treatment levels for lagoons.

COMMENT NO. 3: The optimization study that is required in order to receive a general variance should be conducted before or concurrent with the issuance of a general variance. It should not be done after the general variance is issued.

RESPONSE: Section 75-5-313(9)(a), MCA, requires that a permittee receiving a variance complete an optimization study. Section 75-5-313(9)(b), MCA, provides that the department can request the results of the optimization study within two years of receipt of the variance. Thus, the department does not have authority to require the optimization before or concurrent with the issuance of the general variance.

COMMENT NO. 4: The department will have to spend a great deal of time on variance requests and triennial variance reviews. How does the department plan to address this workload?

RESPONSE: With the passage of Senate Bill 367 (now codified at 75-5-313, MCA) and the allowance for general variances, the large workload that would have been associated with carrying out individual variances in all cases was alleviated. General variances can easily be implemented by the MPDES permitting unit without the need to consult with the water quality standards unit. In those cases where an individual variance is requested, staff from permitting, standards, department wastewater engineers, and the department's economist will be working together, distributing the workload and increasing available staff. Triennial reviews are a normal part of all water quality standards updates. The updates associated with nutrient standards and variances should not be more burdensome than similar work already undertaken by the department in this regard.

COMMENT NO. 5: We oppose the widespread, categorical use of variances, particularly general variances, as water quality tools in this rulemaking. Twenty years is too long a period to not comply with a standard. We urge the DEQ to consider alternative approaches, particularly the use of compliance schedules. Compliance schedules should be limited to five years.

RESPONSE: The department does not agree with the comment. Compliance with nutrient standards, particularly nitrogen, may take a significant amount of time and the 20-year variance period will allow technology, facility optimization, and other strategies time to improve and take effect. In addition, capital cost is a significant issue, especially for small communities. In proposed rulemaking in the Federal Register (September 4, 2013), EPA stated that it had found that variances are underutilized. For example, since EPA began tracking water quality standards variance submittals in 2004, four EPA regions have never received a single water quality standards variance submittal. There is general agreement between the state

of Montana and the EPA that more than five years is needed to address nutrient pollution, conforming with technological advancements and cost improvements. In some instances, compliance schedules may also be used for the purpose of meeting nutrient standards.

COMMENT NO. 6: Variances are an unnecessary tool for allowing time for a waterbody to come into compliance with base numeric nutrient standards because TMDLs, once approved by EPA, do not have time requirements in them by which the waste load allocation must be achieved.

RESPONSE: The department does not agree with the comment. Federal and state laws require that TMDL waste load allocations (WLAs) be incorporated into permits when renewed, which effectively involves a timeline that generally should be no more than five years from completion of the TMDL (and conforming with permit renewal cycling). The exception is if the TMDL provides for a 20-year staged WLA implementation that is not only consistent with the variance process, but also relies on the variance process once numeric standards are approved. The variance process provides a critical framework to justify and base the staged WLA implementation upon. Furthermore, TMDLs will not always be available at the time of permit renewal. Thus the variance process is a critical tool to address the economic and technical limitations while at the same time striving toward water quality protection.

The availability of a variance process for implementing point source improvements within the context of numeric nutrient standards has been a critical and necessary requirement for advancing numeric nutrient standards within Montana based on consultation and involvement of state agencies, federal agencies, the nutrient work group, and the Montana Legislature. This process has been developed in a way that complements TMDL and associated WLA development.

COMMENT NO. 7: We are concerned that section 2.0 of Department Circular DEQ-12B states that variance limits take precedence over limits imposed by a waste load allocation in a TMDL. This violates federal TMDL case law.

RESPONSE: Waste load allocations are made to achieve standards on streams that do not meet the standards. Variances can be granted where compliance with the standard would cause substantial and widespread economic impacts. Requiring compliance with a waste load allocation made to meet a standard from which a variance had been granted would render the variance process meaningless. The commenter has not cited any specific case or judicially established principle that would be violated by this provision.

COMMENT NO. 8: The variance rules must be clear that variances have a specific expiration and are subject to review every three years.

RESPONSE: Triennial review is required by 75-5-313(8), MCA. It is not necessary to repeat this requirement in the rule. Section 2.0 provides that the general variances authorized in Table 12B-1 expire on July, 1, 2017. For individual variances, a separate rulemaking is required. Expiration dates can be considered in those proceedings.

COMMENT NO. 9: It should be specified in the variance rule that a variance cannot be obtained if the water quality criterion can be achieved with a combination of technology-based requirements and aggressive permit requirements for best management practices.

RESPONSE: Including such a broad-brush statement in the variance rule would be, in some cases, contradictory to statute. Section 75-5-313(5)(a), MCA, indicates that, for existing dischargers, meeting the base numeric nutrient standards now is too economically burdensome. For this reason, the statute establishes the general variance levels, which are economically achievable for existing dischargers in the vast majority of cases. To include the commenter's blanket statement in the variance rules would effectively negate this statute because limits of technology may, in some cases, allow for meeting the standards; but the technology is far too expensive to install. In cases where an individual variance is appropriate, the department is required, by statute and by New Rule I (5), to consider reasonable alternatives that preclude the need for a variance; and those alternatives may include those listed by the commenter. Going forward, the department will be adjusting the general variance treatment levels conforming with improvement and technological advances as required by 75-5-313(7)(b), MCA.

COMMENT NO. 10: The variance rule should specify that a variance can never be an option for a new or expanding source. This would violate federal water quality law and regulations. In *Friends of Pinto Creek v. EPA*, the Ninth Circuit held that, without a plan to achieve water quality standards, a permitting agency cannot allow a new discharge that will exacerbate existing water quality.

RESPONSE: Nothing in 75-5-313, MCA, indicates that variances are not available to new dischargers. In comments regarding this rulemaking, EPA has indicated that there may be situations in which new dischargers may demonstrate that a variance will protect existing uses and receive a variance. The Pinto Creek case did not deal with a situation in which a variance process had been used. Furthermore, variances provide a process to eventually achieve water quality standards.

COMMENT NO. 11: With regard to Tier II high-quality waters, any variance that would authorize degradation of high-quality water below a currently attained designated beneficial use is inconsistent with antidegradation and the requirements of the Clean Water Act.

RESPONSE: The department agrees that a demonstrable impact to an attained beneficial use in a Tier II high-quality water would not be consistent with the federal Clean Water Act. Furthermore, 75-5-303(1), MCA, provides that existing uses of state waters and the water quality necessary to protect those uses must be maintained. This is a statutory requirement and it is not necessary to repeat it in the rule. However, there may be situations where it would be possible for a new discharger to show that a variance (e.g., an individual variance) protects the existing beneficial use while providing temporary relief from meeting the underlying nutrient standards. In such cases, a variance may be justified. Strong control of one nutrient, effectively rendering the stream limited for that nutrient, may be one method by which a variance for the other nutrient is justifiable.

COMMENT NO. 12: Also with regard to Tier II high-quality water, 75-5-303, MCA, prohibits degradation without an authorization to degrade.

RESPONSE: That is correct with regard to new or increased discharges. There is no need to repeat this statutory requirement in the rule.

COMMENT NO. 13: The department's rules fail to contain an explicit requirement that permittees seeking variances must submit a pollutant-reduction plan that includes any actions to be taken by the permittee that would result in reasonable progress toward meeting the underlying base numeric nutrient standards. Required studies and monitoring should be structured such that the DEQ and the public can determine whether or not water quality is improving or deteriorating and whether any reasonable progress has been achieved.

RESPONSE: The department does believe that the comment accurately reflects the statute or the draft rules. All recipients of general variances, the type of variance the department expects to be most widely used, have to complete a facility optimization study. The study results can be requested by the department and will likely inform future MPDES permitting decisions. Monitoring of nutrients will be part of the requirements in all future permits addressing nutrients (including permits with general variances). ARM 17.30.1342 and 17.30.1351 require monitoring for pollutants that have a reasonable potential to violate a standard. When an individual variance is applied for, a demonstration is first required of the permittee in advance of the receipt of the variance. This demonstration includes information which would allow the department to determine if reasonable alternatives, such as reuse, recharge, trading, etc., are available and which preclude the need for the individual variance. New Rule I lays out a clear set of pollution-reduction requirements that must be met before an individual variance is issued. This information is available to the public.

COMMENT NO. 14: The Legislature's finding that "treatment of wastewater to base numeric nutrient standards would result in substantial and widespread economic impacts" precludes the need for individual or alternative variances. The department should not rely on the EPA's 1995 draft guidance on economic impacts.

RESPONSE: The finding by the Legislature that meeting base numeric nutrient standards would have been economically burdensome to Montanans does not, in and of itself, preclude the value or necessity of individual variances. The Legislature created the three general variance categories, along with their associated nutrient-removal treatment requirements, as a means of establishing the treatment levels that would not cause substantial and widespread economic impacts statewide. No additional showing of economic impact will be required of current permittees who can't meet the underlying standards but can meet the general variance concentrations. Nevertheless, some permittees may find meeting the general variance concentrations difficult. For them, the individual variance provides a means by which they may receive treatment requirements less stringent than those required for the general variances. But to be considered, individual variances will require an economic analysis, because the permittee requesting such a variance would be requesting a treatment level relaxed from that which the Legislature identified as generally acceptable, i.e., the general variance treatment levels.

The department will not rely exclusively on the EPA's 1995 guidance when making economic impact decisions for applicants of individual variances. The EPA guidance was substantially modified during early meetings with stakeholders and has been customized to Montana. Further, EPA provides little guidance on what expenditure a private firm should be expected to make towards water pollution control if they qualify for an individual variance. Therefore, that determination will be made as part of the issuance of the individual variance.

COMMENT NO. 15: The guidance that the department has developed for implementation of variances should have been submitted for public comment concurrent with this rulemaking.

RESPONSE: The guidance is not binding on the department or permittees. It was available at the same time and many commenters, including the person who submitted this comment, also submitted suggestions regarding that document.

COMMENT NO. 16: Please clarify implementation of nondegradation for existing and future permits. The department should recognize the seasonal nature of the nutrient standards when implemented in permits and nondegradation provisions.

RESPONSE: This process is clearly set out in ARM Title 17, chapter 30, subchapter 7, which has been amended by the Board of Environmental Review to specifically provide for application of nondegradation to nutrients. Nondegradation requirements do not apply to existing permittees unless they become increased sources as defined in ARM 17.30.702(18). For new or increased sources, as defined in ARM 17.30.702(18), nondegradation for base numeric nutrient standards will be applied following the requirements in ARM 17.30.715. If this process results in a finding that degradation will occur, the applicant can apply for an authorization to degrade. Department Circular DEQ-12A clearly provides that the standards are seasonal in nature. The department would, therefore, be legally bound to recognize this seasonal nature in permitting, including application of nondegradation.

COMMENT NO. 17: Please clarify the definition of monthly and annual averages provided in Department Circular DEQ-12B.

RESPONSE: Section 75-5-313(5)(b), MCA, provides that general variances are to be "calculated as a monthly average during the period in which the base numeric nutrient criteria apply." The period during which the base numeric nutrient standards will apply extends across several months each summer and fall. Therefore, the variance treatment levels in statute are best considered as long-term averages (LTAs). "Long-term average" has a specific definition in permits, one that pertains to effluent quality over an extended time period, and is used (via a standardized process) to calculate a permittee's Average Monthly Limit (AML). The AML is the average concentration that the permittee must meet each calendar month during the time the nutrient standards apply. This implements the "calculated as a monthly average" aspect of the statute. The conversion of an LTA to an AML accounts for the variability in concentration in the permittee's effluent. Thus, the "monthly average" definition in Department Circular DEQ-12B provides the definition

by which a permit writer derives a permittee's LTA. That LTA is then used to calculate the AML, which goes in the permit.

The on-the-ground effect of this definition is that, in all cases, the nitrogen and phosphorus limits, with which a permittee must comply each month, are somewhat higher (less stringent) than if the values in statute were directly considered to be AMLs. For example, a particular permittee who discharges more than one million gallons per day and collects four samples per month as part of the compliance requirements would need to meet 10.8 mg TN/L to comply with a general variance. Without the definition provided in Department Circular DEQ-12B, the permittee would have to meet 10.0 mg TN/L, because no accounting for effluent variability over the long-term would be allowed.

Annual averages are not included in the circular.

COMMENT NO. 18: An alternative variance should be included in the parenthetical in Department Circular DEQ-12B, Section 2.0, 2nd paragraph, last sentence on page 1.

RESPONSE: It is correct that the referenced sentence applies to all types of variances. The sentence has been modified by eliminating the specific adjectives that modify "variance."

COMMENT NO. 19: The fact that the basis for an individual variance can also be limits of technology, or both economics and limits of technology, should be noted in Department Circular DEQ-12B, Section 3.1, 3rd paragraph.

RESPONSE: The department agrees and has added language recognizing limits of technology.

COMMENT NO. 20: Forty CFR 131.10(h)(2) prohibits removal of a designated use if the use can be obtained by implementing effluent limits and reasonable and cost effective nonpoint source controls.

RESPONSE: EPA in guidance documents has stated that variances are available if one of the factors in 40 CFR 131.10(g) is met and existing uses will be protected. The department does not have direct authority to impose enforceable controls on nonpoint sources of pollutants. However, the department routinely identifies nonpoint sources during the development of total maximum daily loads. These nonpoint sources can then implement improvements voluntarily. Nonpoint sources can also establish agreement with point sources for the purpose of reducing nutrient loads if a nonpoint source enters into an agreement with a point source, and this nonpoint source reduction is accounted for in the point source's discharge permit.

COMMENT NO. 21: The extent of downstream protection a discharger is responsible for should be clarified prior to rule implementation. It should be clarified that a discharger is only accountable within the mixing zone or until the point where the next source of nutrients (point or nonpoint) occurs.

RESPONSE: Department Circular DEQ-12B, as proposed, does clearly provide, in the last paragraph of Section 3.2, that only when new, site-specific nutrient standards are established on a river or stream will downstream effects be

considered. If an individual variance is developed via modeling (per Section 3.2 of Department Circular DEQ-12B and also New Rule I(4)), no consideration of downstream use protection is given when the variance is applied in an MPDES permit. It is only when the model-based nutrient concentrations are proposed as site-specific standards that there will be a requirement for an analysis of the standards' downstream effects. The length of stream to which model-based site-specific criteria apply will be a case-by-case determination. But the norm by which the length of the reach will be determined is the same: downstream to the point where the site-specific conditions that allow for more relaxed nutrient standards continue to exist, but no further. For example, if the river reach in question is strongly P limited, but that condition ends four miles downstream where a tributary with naturally-high P joins it, rendering the river N and P co-limited, then the confluence with the tributary would be the logical endpoint of the site-specific criteria.

The downstream distance to which a point source discharge is held accountable is a TMDL question and does not affect standards-setting considerations in the previous paragraph. It should be noted, however, that the request that "downstream use protection," as viewed through the lens of the TMDL, extend no further than to the end of a point source's mixing zone is very likely too limited. Elevated nutrient concentrations can manifest their effects for miles below a point source and mixing zones are kept to the shortest length practicable, usually much less than miles. For an example of where a TMDL considered the longitudinal effect of a point source, please see Appendix G of the East Gallatin River TMDL at http://deq.mt.gov/wqinfo/TMDL/LowerGallatin/Appendix_G_EGAL_wQmodelfnl.pdf.

COMMENT NO. 22: Legislative intent was that variances would be available to all dischargers. However, the rules are silent on the availability of general variances to all. This creates too much uncertainty where industry is concerned. The department should, at a minimum, state for the record its position on the issuance of the general variance for new and increased dischargers for both the public and private sector.

RESPONSE: General variances are available to new and increased dischargers of both the public and private sector if the general variance concentrations will protect the existing beneficial uses of the receiving waterbody (and giving consideration to any downstream effects). In such cases, a general variance may be justified. Variances are not authorized for new or increased dischargers in cases where existing uses would be impacted and it is likely that the general variance concentrations will impact beneficial uses. Therefore, an individual variance, in which the permitted discharge concentrations are more stringent than the general variance values but still relaxed from the standards, is much more likely to be appropriate. In addition, an individual variance crafted in such a situation would probably be near to the limits of technology, which can also be the basis of a variance.

COMMENT NO. 23: Department Circular DEQ-12B adds a layer of qualification not found in 75-5-313, MCA, by requiring the "highest attainable condition within the receiving water." Also, the circular should address alternative variances.

RESPONSE: The language to which the commenter refers is in section 3.1 of the circular, which pertains to individual variances. Section 75-5-313(3), MCA, provides that, in reviewing an application for an individual variance, the department must determine whether there are reasonable alternatives that preclude the need for the individual variance. The optimization study required in 75-5-313(9)(a), MCA, requires the permittee receiving a variance to analyze "cost-effective methods of reducing nutrient loading." Thus, it was within the contemplation of the Legislature that the department would, in the individual variance process, reduce the amount of nutrient loading to the extent possible. The "highest attainable condition" requirement is within the department's authority under the statute.

Section 75-5-313(10), MCA, which authorizes alternative variances, is self-executing and can be implemented without any reference in the rule or the circular.

COMMENT NO. 24: The overall nutrient standards package, including variances, cannot result in a regulatory moratorium on new business in Montana.

RESPONSE: The purpose of the variance process is to assure that the economic effects of nutrient standards will not cause a regulatory moratorium on new business in Montana. In turn, the rules that have been developed to implement the statute reflect this intent. Variances can be granted to new businesses as long as the new dischargers show that the variance protects the existing use.

COMMENT NO. 25: In the department's REASON (page 276, MAR Notice No. 17-355), "most" or "virtually all" should replace "many" in the third sentence of the first paragraph.

RESPONSE: The purpose of the sentence is to state the reason for adoption of the rule. The term "many cases," indicating a large number of cases, provides an adequate basis for adoption of the rule. Whether using the terms "virtually all" or "most" would be a better description is not material.

COMMENT NO. 26: On pages 276-277 of MAR Notice No. 17-355, the language in the REASON should be changed. The 6th sentence of the 1st paragraph should be rewritten as follows: "The statute requires DEQ to grant variances from base numeric nutrient standards in those cases where meeting the standards today would be an unreasonable economic burden or technologically infeasible and the permittee meets the end-of-pipe treatment requirements in Dept. Circular DEQ-12B."

RESPONSE: The department does not believe the requested text change is necessary. As currently written, the sentence reads "That statute allows dischargers to be granted variances from base numeric nutrient standards in those cases where meeting the standards today would be an unreasonable economic burden or technologically infeasible." The intent of the sentence is to show that the department was, via statute, given authority to grant variances from the nutrient standards. The replacement sentence provided by the commenter could be construed to mean that no alternatives are to be considered prior to issuing a variance. However, statute is clear (see 75-5-313(3), MCA) that a permittee must consider (and the department must review) alternatives (e.g., trading, land application, etc.) prior to receiving an individual variance.

COMMENT NO. 27: If a stream is not listed as impaired, is it really necessary that the numeric nutrient criteria be met?

RESPONSE: Yes. Discharge permits must be written to require compliance with standards unless a variance is issued.

COMMENT NO. 28: Although variances generally may be granted for up to 20 years, they require review through a rulemaking process every three years. Where companies need long-term stability commensurate with long-term investment, this adds too much uncertainty.

RESPONSE: The three-year rulemaking process is required by 75-5-313(8), MCA. The department cannot modify a statutory requirement in a rule.

4. The amended circular may be viewed at and copied from the department's web site at <http://deq.mt.gov/wqinfo/Standards/default.mcp>. Also, copies may be obtained by contacting Carrie Greeley at Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901; by phone at (406) 444-6749; or by e-mail at CGreeley@mt.gov.

5. No other comments or testimony were received.

Reviewed by:

DEPARTMENT OF ENVIRONMENTAL
QUALITY

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

BY: /s/ Tracy Stone-Manning
TRACY STONE-MANNING, Director

Certified to the Secretary of State, July 28, 2014.