To: Tina Laidlaw/MO/R8/USEPA/US@EPA[]
From: "Mathieus, George"
Sent: Wed 12/5/2012 6:36:37 PM
Subject: FW: Nutrient rules, R to Cmnts
Comments_11-09_addressed.docx

Please look at and let's sit down and finalize this. Please keep to yourself at this point. Thanks, George

-----Original Message-----
From: Suplee, Mike
Sent: Wednesday, December 05, 2012 10:45 AM
To: Mathieus, George
Cc: Urban, Eric
Subject: RE: Nutrient rules, R to Cmnts

Hi George;
Here is the last version I worked on.

Mike

-----Original Message-----
From: Mathieus, George
Sent: Wednesday, December 05, 2012 8:20 AM
To: Urban, Eric; Suplee, Mike
Subject:

Please send me an electronic version of your response to comments from the NWG.

I am finally working on them today, thanks

COMMENTS RECEIVED IN JULY AND AUGUST 2012 ON THE DRAFT NUMERIC NUTRIENT STANDARDS PACKAGE

1. General Comments

Comment: A severability clause will be included

Response: Yes, this has been DEQ's clearly stated intent from the beginning: the nutrient criteria and the variance process are to be adopted and remain together.

Comment: Section 2.1 of Part B, wastewater optimization study-language should be added to address private facilities

Response: Bullet 1 and 3 apply equally to municipal and private facilities. If additional language is requested, please provide ideas.

Comment: Adaptive management and how significance will be applied at a watershed level.

Response:

(1) Adaptive Management. DEQ believes the approach it is proposing will address adaptive management. The essence of adaptive management is to establish criteria, emplace controls, monitor the results (for both river biological response and criteria attainment), and then re-evaluate the criteria with the data in hand. DEQ's updated rule package will include the option to model a reach of stream to see if emphasis on reducing a single nutrient may achieve the same desired biological and water-quality endpoints as equal emphasis on reducing both nitrogen and phosphorus. Consideration of the effect of the non-target nutrienton downstream waterbodies and beneficial uses would be a required part of this analysis. If single-nutrient modeling results are approved by the Department, the facility may apply for an individual variance that emphasizes reduction of the critical nutrient and that temporary caps future reductions of the other nutrient. Accompanied with stream monitoring, after some years it should be possible to confirm or refute the model's predictions. Updated criteria for the reach can be adapted if warranted.

(2) Significance at a watershed level. There is no agreed upon value as to when a point source should be considered a significant part of a nutrient load. The significance/non-significance of a point source in a watershed will be addressed on a case-by-case basis in the TMDL, and will vary according to whether the stream reach into which the facility discharges (a) is impaired for nutrients, (b) is not impaired for nutrients but may be a contributor to a downstream nutrient-impaired reach, or (c) has become unimpaired for nutrients due to upstream load reductions. Adaptive management also has a role in the TMDL, as over time the original conditions that established the above 3 scenarios can change and the TMDL can be revisited to address current conditions.

Comment: Clarify how TN and TP will be addressed separately

Response: Regarding variances, DEQ has stated that it would allow nitrogen and phosphorus to be addressed individually. For example, a Permittee could have a general variance for total nitrogen (TN) but may be able to meet the total phosphorus (TP) criterion and, thus, would not need a TP variance. Similarly, a Permittee could be operating under a TP general variance but have an individual variance for TN set at a higher concentration than the TN general variance. Regarding the achievement of the criteria themselves, DEQ believes firmly that both nitrogen and phosphorus criteria are necessary and that control of both N and P is necessary to achieve full support of beneficial uses in rivers and streams. Duel nutrient control is well supported in the peer-reviewed scientific literature. It is also supported by long-term monitoring results from the Clark Fork River where reduction of both nitrogen and phosphorus has been undertaken for many years and these efforts are achieving the biological goals in reaches of the river. This does not, however, preclude the possibility of further refinement of the criteria on a stream- or reach-specific scale.

Comment: What impact will there be on the current Department workload regarding the processing of variance applications?

Response: The vast majority of cases will be general variances, will be processed by Permitting, and should not lead to significant impact on staff time or cost. Economic- impact based individual variances can be completed by applicants using DEQ's existing spreadsheet and need then only be reviewed by DEQ. Mechanistic model-based individual variances will require time from Standards and Modeling staff to review. Staff is available for such work, and it is expected that model scenarios will be reviewed more quickly after one or two have been undertaken.

Comment: Explain the role of the 1995 EPA guidance

Response: With the adoption of SB 367 and the creation of general variance categories, the 1995 EPA guidance will be used only for individual variances pursued by Permittees who are demonstrating substantial and widespread economic impacts resulting from meeting the general variance concentrations. (Note that the 1995 EPA guidance does not apply to individual variances based on water quality modeling.) A Montana-modified spreadsheet version of the 1995 guidance is complete, and can be used by public sector entities. The public-sector guidance was modified to fit Montana's economic structure by a predecessor advisory group that met in 2008-9 and which was similar to the Nutrient Work Group. For the private sector, the 1995 guidance provides a framework for assessing profitability, etc., and DEQ can consider plant-specific data per earlier EPA guidance on the topic. The actual level of nutrient removal then required of a private-sector recipient of an individual variance would be determined by consultation between DEQ and the facility operator.

Comment: Mining industry concern in meeting criteria and nondegredation

Response: Recent meetings between DEQ and representatives for the blasting industry indicate that very large reductions in nitrate concentration can be achieved by applying BMPs during blasting operations. These BMPs have been shown to reduce residual nitrate down to 8 mg TN/L even before specialized water treatment. But in cases where little stream dilution is available, meeting nondegradation for nitrogen and phosphorus standards will require exploration of other options (seasonal retention, for

example). DEQ is continuing to explore all avenues related to nutrients and the nondegradation evaluation process, including hiring a consultant with extensive experience with this topic. Finally, it should be noted that numeric nutrient criteria would not apply to ephemeral streams, where some mines may open, so long as said streams remain ephemeral after discharge begins.

Comment: Forestry concern over roads becoming point sources

Response: Still being resolved in the courts. However, it would probably be safe to assume that SMZs and proper road BMPs may be part of any future permits if the courts consider roads point sources. This would primarily affect TP standards, as the linkage between TP and forest roads is via fine-sediment runoff.

Comment: The economic test for individual variances should rely on statewide economic analysis

Response: This would be contradictory to the idea that an individual variance is pursued because an individual community or company is substantially different from the statewide average. The general variance treatment levels were set at levels deemed, on average, to be affordable at the statewide level, and are available to all.

Comment: Biological confirmation

Response: DEQ has invested 12 years of research and analysis, including a rarely-carried out whole stream dosing study (thus quantifying real-world effects of excess nutrients), and a thorough evaluation of the scientific literature, in order to understand the relationship between nutrients and biological effects in flowing waters. All of DEQ's work pertaining to nutrient criteria has been externally peer reviewed by scientific experts. Independent work by adjacent states (e.g., Utah) is arriving at numeric nutrient criteria very similar to Montana's. Thus, the effects of excess nitrogen and phosphorus on the biology of waterbodies are generally understood. Where a stream reach has characteristics that dampen the effects of nutrients, or where greater emphasis on control of one nutrient may achieve equivalent biological goals as controlling both equally, these situations may be accounted for in reach specific monitoring, assessment, and modeling and, ultimately, in reach specific criteria; the proposed DEQ rule process also allows for this. In addition, DEQ's 2010 stream reach assessment methodology considers weight-of-evidence of both biological and chemical (nutrient) data when assessing streams; a lack of biological response is accounted for in that process. The assessment methodology may be found at http://deq.mt.gov/wqinfo/qaprogram/sops.mcpx , then click "Nutrient Assessment Method".

Comment: The application of the 95% percentile of the effluent is too strict

Response: The use of the 95th percentile is consistent with permit development for chronic water quality standards (and not just toxic compounds) and assures that DEQ writes permits that the Permittee can consistently achieve in a regulatory environment. Permits written to the 50th percentile of the effluent, for example, would be exceeded during compliance monitoring roughly half of the time and lead to constant violations. As a point of clarification, DEQ is not requiring that upstream water quality (used for dilution calculations) be characterized using the 95th percentile; this is now explicit in draft DEQ-12.

Comment: Clarify how TMDL watershed approach works-non-significant source

Response: Where a TMDL concludes that a point source is a minimal contributor to the water quality problem, then the current waste load is adequate and this would be reflected in the permit; no variance would be needed.

Comment: NonDeg and non-point sources, how would this rule package affect non-point sources?

Response: Nonpoint sources remain unregulated and continue to be addressed via voluntary means and programs (DEQ's 319 grants, for example).

Comment: Nondeg's role in existing sources, increased sources, and new point sources

Response: DEQ is working on non-degradation and numeric nutrient standards as applied to new dischargers, and will have additional discussions with the Nutrient Work Group on the topic. The current nondegradation provisions are found in Subchapter 7 of the Administrative Rules of Montana (ARMs). Nondegradation applies to new dischargers, with 4/29/1993 established as the point in time after which a source is considered new. Existing sources (e.g., discharge from a town with an MPDES permit) are those sources that had a discharge permit on the April 1993 date and currently maintain the permit; such discharges will continue to be categorized as existing going forward. At present, the only time a load limit for N & P is established in a permit is if the discharge is to a water quality limited (i.e., 303[d] listed) segment and the TMDL/WLA has not been completed; this fits a large number of POTW dischargers. (an exception is the Clark Fork River, which already has numeric nutrient standards and therefore nutrients are in permits in that drainage). The basis for these limits is 75-5-703(10), MCA and the Molloy decision. If numeric nutrient standards are adopted and an existing source increases its flow beyond its facility's design capacity (e.g., due to population growth), the effluent limits are recalculated based on the increased flow, resulting in lower effluent limits.

Comment: Cost of implementation has not been fully addressed

Response: DEQ has completed two detailed cost analyses that consider the financial impact of meeting the standards today, for both the public and private sector. These are available on the DEQ's website at:

http://deq.mt.gov/wqinfo/NutrientWorkGroup/default.mcpx

The cost of implementation over the next 20+ years is not knowable, but DEQ's process is set up to assure that changes in expectations for nutrient removal move in tandem with technological improvements and associated cost reductions. Thus, achieving the criteria will continue to follow a trajectory that assures that the cost to achieve the criteria remains reasonable for Montana citizens.

Comment: What about disclosure of private industry's financial records?

Response: One of SB367's purposes was to preclude, in almost all cases, the need for private companies to seek individual variances and disclose financial records. In fact, among the 51 private-sector MPDES permit holders likely to be affected by numeric nutrient standards, nearly 70% are already achieving the

general variance concentrations today (see Appendix A, "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", available at: http://deq.mt.gov/wqinfo/NutrientWorkGroup/default.mcpx). However, returning to financial records, DEQ legal has previously indicated that such financial records may become part of the public record if provided to DEQ. For those unusual cases where a private sector party may need an economic affordability-based individual variance, there also exists the possibility that EPA could hold the financial information and not disclose it, and then run the assessment process on behalf of DEQ.

Comment: SB 367 Directs the Department to use Variances (implies that a variance should apply to Nondeg)

Response: DEQ legal has not yet provided a clear indication whether variances, for example general variance treatment levels, may apply to nondeg situations for new sources. However, if granting a variance in a situation where nondeg applies would lead to exceeding water quality standards, this would seem to be contradictory to testimony provided by DEQ (DHES at the time) in 1993 on SB 401 (the senate bill which provided the major update to the nondegradation rules). State law already allows for degradation of state waters (up to water quality standards, but not beyond) by a new source. This would require an authorization to degrade, but the applicant must show that there are no economically, environmentally, or technologically feasible alternatives and that degradation is needed for important economic and social development which exceed the cost to society of the degradation. DEQ acknowledges that a clearer process by which an authorization to degrade is be completed could be helpful.

Comment: How are "TMDL standards" affected by the variance process?

Response: TMDLs do not develop standards, they apply them. If nutrient standards and the variance process become law, TMDLs will be developed that meet the load the stream can handle and still meet TN and TP standards; but if a variance is in place (or being put in place) the TMDL will view this as a phased approach to achieving the TMDL. A TMDL waste load allocation will not "trump" an appropriately acquired variance.

Comment: Draft Drumlummon application of non-degredation

Response: All water quality based effluent limits in the draft Drumlummon permit were based on the application of the nonsignificance criteria given in ARM 17.30.715, that is, protection of existing water quality (Tier 2). The company did not apply for or request a mixing zone, therefore no dilution was used in developing the wasteload allocations (WLAs), and the company did not request an authorization to degrade state water. Specifically, the total nitrogen limit (0.3 mg/L, AML) was based on ARM 17.30.715(1)(g) which states that for parameters for which there are only narrative standards (i.e., total nitrogen) there shall be no change in water quality that will have a measureable effect on any use or cause a measurable change in aquatic life or ecological integrity. The department does not have a method for assessing measurable effects or changes at this level, therefore the WLA is set at existing levels. Background TN levels range from 0.26 to 0.43 mg/L as determined from the 25th and 75th

percentiles (median 0.35 mg/L). The WLA was based on the 25th percentile of the data. In the calculations and due to monitoring considerations, this value was rounded to 0.3 mg/L and expressed as an AML.

Comment: How will the new criteria affect the 303(d) list?

Response: In all probability there will be fewer streams listed for nutrients than in the past, and a number of those currently listed will be found not to be nutrient impaired. DEQ has developed a solid understanding of what natural background nutrient concentrations look like across the state, as well as what harm to use looks like, and unbiased estimates indicate that 70-90% (depending on the nutrient) of the stream miles in the state meet the proposed criteria right now. DEQ's new assessment process for nutrients considers multiple lines of evidence and this process was well received during the public comment period (including comments from members of the Nutrient Work Group).

Comment: Will the new criteria increase the TMDL workload?

Response: No, in fact they will likely reduce it. One of the main attractions of the numeric standards is that they preclude, in most cases, the need for site-by-site and case-by-case interpretation by TMDL staff. DEQ's TMDL program has and does apply the narrative standards applicable to nutrients (e.g., ARM 17.30.637[1][e]), and the numeric criteria will preclude the need for case-by-case interpretations.

Comment: Provide case study for how adaptive management Section 4.1 would be used ("result in significant environmental improvement and progress towards attaining standards")

Response: "significant environmental improvement and progress towards attaining standards" was problematic in the draft rule. This concept has been made clearer in updated rule and guidance by DEQ's indication that water quality models and monitoring data may be used to demonstrate that the same biological and water quality endpoints on a reach of stream can be achieved by greater emphasis on reducing one nutrient or, alternatively, that monitoring data demonstrate that a stream reach is insensitivity to nutrients for natural reasons; in both cases, reach-specific criteria may be appropriate. Please note that consideration of downstream use impacts will still need to be evaluated prior to adoption of such criteria.

Comment: A scoping statement would be appropriate in the General Introduction section (of the circular) and the rules themselves to confirm that nothing in either is intended to empower DEQ to act in excess of the authority set forth in the statutory provisions enacted through Senate Bill 367.

Response: In compliance with the Clean Water Act (CWA), the Montana Legislature has designated the DEQ as the state agency responsible for regulation of point-source discharges of pollutants in Montana.

See § 75-5-211, MCA. Similarly, the Board of Environmental Review (BER) is the designated rulemaking body for water quality regulations in Montana. See § 75-5-201, -301, MCA. Consistent with the mandates of the CWA, the BER is statutorily required to adopt water quality standards. See § 75-5-301(2), MCA. No further statement is necessary regarding the scope of the rules proposed in DEQ-12.

2. Comments Pertaining to Part B of Draft Circular DEQ-12 (v 6.4)

Comment: In Section 1.0 of Part B of the Circular, the language at the end of the section should be revised to read "cannot be achieved because of economic impacts, the limits of technology, or both".

Response: DEQ agrees that with the recommended change and will include it.

Comment: Table 12B-1 of Part B should be revised to reflect the language of 75-5-313(5)(b), which refers to a monthly average, not a long-term average.

Response: This is a case where statutory language needed to be interpreted in order to mesh with methods used by the executive branch agency (DEQ). Discussions with Permitting pertaining to the statute's end-of-pipe values concluded that, functionally, the statute's monthly averages are best viewed as long-term averages; long-term averages are then adjusted to reflect the variability of a facility's effluent and the intended monitoring frequency of the effluent going forward. This is a standardized permitting process that results in the Average Monthly Limit, which is the average concentration that the Permittee must meet each month during the period in which the criteria apply. The on-the-ground effect of these adjustments is that, in all cases, the nitrogen and phosphorus concentrations which a Permittee must comply with are higher (less stringent) than if the values in statute were directly considered to be Average Monthly Limits. Please see the presentation by DEQ Permitting nested in the December 15, 2011 Nutrient Work Group minutes for further detail.

Comment: Section 2.0, the end of the first sentence of the first paragraph should be revised to "a permittee who meets the end-of-pipe treatment requirements provided below in Table 12B-1 may apply for and DEQ shall approve a general nutrient standards variance." Revision necessary to be consistence with 75-5-3131(5)(a) and (b).

Response: DEQ agrees with the comment and will make the change.

Comment: Section 2.0, "A person" should be modified to "An entity" is the first paragraph.

Response: Person is the appropriate term according to statute, both general and specific to water quality:

1-1-201. Terms of wide applicability.

(1) Unless the context requires otherwise, the following definitions apply in the Montana Code Annotated:
(b) "**Person**" includes a corporation or other entity as well as a natural **person.**

TITLE 75 ENVIRONMENTAL PROTECTION
CHAPTER 5 WATER QUALITY
PART 1 GENERAL PROVISIONS

75-5-103 *(Temporary)*Definitions.
Unless the context requires otherwise, in this chapter, the following definitions apply:

(28) "Person" means the state, a political subdivision of the state, institution, firm, corporation, partnership, individual, or other entity and includes persons resident in Canada.

Comment: Section 2.0, the beginning of the last sentence of paragraph one should be modified to read "If, after May 31, 2016, a permittee is not eligible for a general variance, if necessary for the permittee to achieve compliance with numeric nutrient standards, the permittee may seek a compliance schedule to meet the treatment requirements shown in Table 12B-1.

Response: This text change request does not make sense to DEQ. State statute is clear that a person requesting a general variance and who can meet the defined treatment levels is eligible. The recommended text change could be construed to mean that a compliance schedule that would lead to meeting the end-of-pipe values in Table 12B-1 equates to compliance with the base numeric nutrient standards, which is not the case. The intent of the last sentence of paragraph one in DEQ-12 was simply to indicate that moving from current treatment levels to general variance levels (or revised general variance levels) may take a permittee some time, and this can be allowed for in a compliance schedule.

Comment: In the second paragraph of section 2.0 in the third sentence, "the" should be inserted in front of "statute" and "contemplates" should replace "indicates".

Response: DEQ agrees with the comment and will make the change.

Comment: In the third paragraph of section 2.0 in the second to last sentence, ", after May 2016", should be inserted after "If".

Response: DEQ agrees with the comment and will make the change.

Comment: In the fourth paragraph of section 2.0, "specific factors" is not adequately precise. MPA recommends that this language be modified to read "specified factors, listed below in this paragraph.".

Response: DEQ agrees with the comment and will make the change.

Comment: The second sentence of the 4th paragraph of section 2.0 should read, "The review will not

take place before June 1, 2016, and will occur triennially thereafter." MPA is unclear what DEQ means when it states "and will be carried out at a fairly coarse level (i.e., statewide). We recommend further discussion on the intent of this language, but support inclusion of modified text.

Response: DEQ agrees that the June 1, 2016 date is a reasonable interpretation of "Immediately after May 31, 2016" (per 75-5-313[7][a], MCA). DEQ will incorporate the recommended change. By "coarse", DEQ means the scale of the analysis will be the whole state, not individual counties or facilities. Metrics for Montana's economic status (statewide median household income, MHI) can be compared to the average estimated cost to install a new nutrient-removal technology, or (for example) compared to the average estimated cost for major facilities (> 1 MGD) to move from WERF level 2 (the general variance level) to WERF level 3. If the cost, on average, is too high relative to statewide MHI (say, greater than 2% MHI) than this would indicate no change in the general variance level is warranted at that time. DEQ is ready to work with the Nutrient Work Group on crafting more specific language, as needed.

Comment: The final paragraph in section 2.0 is lifted from the "conceptual proposal" circulated in an earlier draft. MPA expressed concern about the conceptual proposal at that time. While this language is less objectionable than the earlier draft, it appears to go beyond what Senate Bill 367 requires. It reads: "Only after changes in specified factors had occurred would the general variance treatment requirements be made more stringent. The review will occur triennially and would generally be carried out at a fairly coarse level (i.e., statewide). The Department and the Nutrient Work Group will consider [three listed categories]." This is an area where we cannot improve on the statutory language. MPA recommends inclusion of the language in Mont. Code Ann. 75-5-313(7) instead. It reads: "Immediately after May 31, 2016, and every 3 years thereafter, the department, in consultation with the nutrient work group, shall revisit and update the concentration levels provided in subsection (5)(b). If more cost-effective and efficient treatment technologies are available, the concentration levels provided in subsection (5)(b) must be updated pursuant to subsection (7)(c) to reflect those changes. The updates become effective and may be incorporated into a permit only after a public hearing and adoption by the department under the rulemaking procedures of Title 2, chapter 4, part 3." So, at a minimum, subsection 3 should be deleted because nitrogen or phosphorous speciation and bioavailability may not be considered, particularly depending upon the analysis of the first two criteria listed.

Response: DEQ believes that bullets 1 and 2 fall well within the intent of the statute and 1 essentially paraphrases it. Bullet 2 was addressed above and can be further refined as needed. Bullet 3 (pertaining to speciation) was recommended by wastewater engineers attending Nutrient Work Group meetings but could be removed in the next draft.

Comment: Section 2.1, the second sentence far exceeds the authority provided to DEQ by Senate Bill 367 and should be deleted.

Response: DEQ does not believe anything in statute precludes DEQ from encouraging Permittees from examining a wide range of options and Best Management Practices that could, ultimately, preclude the need for the permittee to need to seek a variance.

Comment: Section 2.1, item 2 in the second paragraph should be changes to "Should not result in rate increases for consumers of local government services or substantial investment by any permittee."

Response: DEQ believes that a change to "Should not result in waste water rate increases" adequately addresses the issue. There is no requirement that the optimization study be a large investment in time and money, as indicated in the paragraph immediately following the three numbered bullets. The amount of time and money invested in the study is left to the discretion of the Permittee.

Comment: Section 2.1., the sentence on who should do the study is poorly crafted. It would be better to say, "How the analysis is to be conducted and by whom is left to the discretion of the permittee.".

Response: DEQ agrees with the comment and will make the text changes.

Comment: In the first sentence of Section 2.2., "and" needs to be changed to "or". This language is drawn from 40 CFR 131.10(g)(3), which is in the disjunctive, not the conjunctive.

Response: DEQ has completely reworked the first paragraph of section 2.2 (and the associated rules) to reflect a more practical means by which a Permittee could remain at a previous general variance concentration; as such, the comment is no longer applicable. Going forward, DEQ believes a water quality model (with monitoring verification) indicating greater emphasis on control of one nutrient will achieve comparable results to equal control of both is one pathway to a type of individual variance. DEQ believes this is reasonable because expending money to greatly reduce both nutrients may not be a prudent use of water pollution control dollars and, therefore, constitutes an unnecessary economic impact; this meets the spirit of 75-5-313(1), MCA. DEQ welcomes comments on the updated paragraph, which is available in the next version of the draft circular.

Comment: Section 3.0 pertains to the individual variance process. Language deleted from the previous draft should be reinserted ("Like the general variance in Section 2.0, individual variances may be established for a period not to exceed 20 years and must be reviewed by the Department every three years to ensure that their justification remains valid.").

Response: DEQ agrees that the earlier text was clear and describes essential aspects of the individual variance well. It will be included in the next draft.

Comment: Section 3.0, in the second paragraph, "as" should be changed to "an".

Response: DEQ agrees with the comment and will make the text change.

3. Comment Pertaining to the Draft Nutrient Standards Rules (v 7.5)

Comment: On page 1 (Version 7.3), the draft includes the following passage: A permittee who has already received a general variance is not required to further treat the facility's discharge to an updated (lower) general variance concentration adopted by the department if it can be demonstrated that achieving the lower concentration would not result in net environmental improvement, or would not result in material progress towards attaining the base

numeric nutrient standard, and would cause more environmental harm than remaining at the previous general variance concentration.

MPA believes that it is essential to delete the "or" and to change the "and" to an "or". This language is drawn from 40 CFR 131.10(g)(3), which is in the disjunctive, not the conjunctive. MPA also believe that further discussion is necessary on what constitutes a significant or insignificant nutrient load and "material progress" as the terms are used in items 6 and 7 on the first page of the rule. This language is too imprecise.

Response: As noted earlier, DEQ has gotten away from reference to factor 3 of 40 CFR 131.10(g) and is now emphasizing water quality modeling that could lead to an individual variance whose rationale is based on factor 6. See the discussion of this topic in DEQ's response to the comment three positions above this one.

4. Comment Pertaining to the Draft Technical Guidance Document "Carrying Out a Substantial and Widespread Economic Analysis for Individual Nutrient Standards Variance AND Guidelines for Determining if a Wastewater Treatment Facility Can Remain at a Previous General Variance Concentration" (v 7.1)

Comment: On page 5, in Section 3.0 of this document, we recommend substituting "published by the" for "presented in". MPA also believes that the second sentence should end with "facility upgrade to meet numeric nutrient standards will not be required." instead of the language in the current draft.

Response: DEQ agrees with the text change from "presented in" to "published by the", and will make the change. DEQ does not agree with the remaining additional language, as it could be construed to mean that if a private entity shows substantial and widespread economic impact from trying to comply with the numeric nutrient standards, then said entity need never comply with the numeric nutrient standards. Section 3.3 of the document outlines an approach that DEQ anticipates can be undertaken in those cases where a private entity cannot affordably meet the nutrient standards at the time of the permit renewal.

Comment: For section 4.0 on page 8, MPA recommends the addition of "and the Department concludes that they would not have a substantial and widespread economic impact" at the end of the third sentence in the first paragraph. Similar language should be incorporated at the beginning of the second paragraph in section 4.0 to amend the current language ("If more effective and economical technologies are available in 2016 when compared to available technology in 2011 and the Department concludes that incorporation of the technology by permittees in Montana would not have substantial and widespread economic impact, in order to remain at a previous general variance concentration, a permittee will need to demonstrate to the Department that (1) moving to the updated general variance concentration would not result in a net environmental improvement or material progress towards attaining the standards, and (2) it would cause more environmental damage than it. would remedy."). Similar language should be incorporated in Section 4.2.

Response: DEQ agrees with the addition of the text to the end of sentence three of section 4.0 and will add it. DEQ believes that the additional sentences at the beginning of the second paragraph of section 4.0 and 4.2 are reasonable and can be added. DEQ will also revisit the language in (1) of the second paragraph of section 4 (and similar in 4.2) to assure that the text captures the intent of the rules (i.e., modeling showing the stronger limitation of nitrogen or phosphorus).

Comment: The citation in the footnote on page 8 is incorrect. "40 CFR 313 (10)(g)(3)" needs to be changed to "40 CFR 131.10(g)(3)".

Response: Thank you for the correction. Going forward, DEQ does not plan to include this footnote in the next draft of the document.

5. Other Comments

Comment: Permittees continue to be concerned about a lack of clarity on how the base numeric standards are going to be reflected in permits. This concern has animated the debate for a number of years and is likely responsible for the reticence of MPA and others in industry to the adoption of numeric nutrient standards. In your 2010 report to the Environmental Quality Council, you identified this tension and charted a path forward. See Mathieus, Suplee, and Blend, "Final Report To The Environmental Quality Council On Progress Toward Numeric Nutrient Standards For Montana's Surface Waters" (June 25, 2010), p. 9 ("Several Nutrient Work Group members representing the private sector expressed that it is not acceptable for companies to be at risk for non-compliance with an adopted standard, subject only to the uncertain possibility of obtaining a variance from the standard. Overall, the members need to see a case study or two worked through from beginning to end. Starting from the point where an expired permit is reviewed for compliance with the standards, through the alternatives analysis and variance process, and finally to the details of the renewed permit. It is critical that the Department and permittees be able to identify what will be required for compliance under the rule upfront in permitting , and that such compliance be reasonably achievable, before base numeric nutrient standards are adopted."). Although it is clear - - and we understand your position to be that it is clear -- that all permittees will be entitled to a general variance from numeric nutrient standards between now and May 31, 20]6, questions about the availability of a general variance between now and 2032 are of significant concern based upon the assumption that technological change will not alter the current calculation that significant and widespread impacts would occur without a variance.

Response: Subsequent to the time that DEQ received this comment (July 18, 2012), DEQ and the Nutrient Work Group have met once (in September 2012) and DEQ presented four case studies— including a private-sector case—covering the permit process, and including variances in renewed permits. DEQ hopes that the examples were able to make the permit process clearer, especially regarding how variances would be incorporated in permits.

Regarding the nature and availability of general variances during the 2016-2032 period in the absence of any low-cost technological breakthroughs (or improved affordability of certain existing technologies), all

DEQ can say at this point is that the general variance concentration requirements would likely remain static; nevertheless, DEQ is receiving pressure from EPA to carefully review the general variance limits for the > 1 MGD category. For lagoons, implementation of BMPs to achieve best-possible nutrient concentrations for that technology has been discussed and has the potential to become a general variance requirement, but this concept needs to be further vetted with engineers with lagoon expertise.

Memos from EPA indicate that other states consider 20 years an appropriate period of time to determine if a water quality problem is temporary and correctable, and Montana has been using this timeframe as a guideline for nutrient pollution as well. DEQ has repeatedly stated that if the 20 year variance period passes and the nutrient standards are still too expensive to meet, there are two options. (1) A change could be made to 75-5-313, MCA to allow the continuation of the variance system beyond the first 20 years. EPA has indicated they do not have issue with this approach, and would likely prefer it to removing or lowering a waterbody's beneficial uses. DEQ believes this pathway would be taken if it appeared at that time that achievability of the numeric nutrient standards (via point and/or nonpoint improvements) was in the works, or clearly on the horizon. (2) If after 20 years it appears that affordable nutrient-removal technology simply is not in the works for most Permittees or, more likely, if there remain specific communities for whom nutrient removal technologies remain too expensive and standards are not being met, DEQ's Water Quality Standards Section is empowered to lower the beneficial use of a waterbody. A stream, for example, could be reclassified to reflect the beneficial uses it can actually support. A use attainability analysis would be required by EPA and accompanying these changes would be nutrient standards that reflect what can actually be achieved in the stream.