Montana League of Cities and Towns (MLCT)
700 W Custer Ave (59602)
PO Box 7388
Helena MT 59604-7388
info@mtleague.net
mtleague.org

Montana Mining Association
P.O. Box 1026
Whitehall, MT 59759
(406) 287-3012
tjohnson@montanamining.org
www.montanamining.org

Montana Petroleum Association
PO Box 1186
Helena, MT 59601
(406) 442-7582
mpa@montanapetroleum.org
www.montanapetroleum.org

Treasure State Resources Association
PO Box 1700
Helena, MT 59624
(406) 443-5541
ptrenk@tsria.net
www.treasurestateresources.net

April 5, 2023

Montana Department of Environmental Quality
Director Chris Dorrington
Lindsey Krywaruchka, Water Quality Division Administrator
1520 East Sixth Avenue
Helena, MT 59601

RE: Draft Rules, Circular and Guidance Document Comments

Dear Director Dorrington and Lindsey:

Thank you for the opportunity to review and comment on the December 2022 version of the Revised Rule, Draft Circular DEQ-15, and Draft Guidance document. Our detailed comments on the Rule, Circular, and Permitting Handout follow. Our largest concerns with the package on a macro level are:

1) **EcoRegion nutrient values applied end of pipe for point source discharges**. SB 358 contemplated an adaptive management plan that was local to each watershed that made watershed decisions on a local level rather than relying on broadly developed values. The Revised Rule (2) (i) and (2) (b) continues to rely on numerical values on an ecoregion basis, rather than the narrative actions and load-based goals developed within the AMP.

2) **Lack of Clarify on permitting.** The provided documents offer little detail on how individual permit decisions will be made.

3) **Lacking Balancing Factors impacting a water body.** SB 358(1)(2a) calls for an approach that "reasonably balances all factors impacting a water body." The current rule, circular and guidance package does not include provisions for recognizing balancing the power and chemical consumption and associated greenhouse gas emissions or other negative consequences of higher levels of treatment, when the incremental water quality benefit for making a point source treatment change may be small.

4) **Additional burden on the Point Source.** The draft rule and guidance set up a system where the point source discharger could be required to complete what is essentially a water quality assessment, which is to be completed by the department and will be an onerous, burdensome task for many dischargers. Additionally, the point source could be required to complete projects that return the watershed to compliance with the standards, regardless of the extent of their contribution to the nutrient issues. This proposal seems to require the point source discharger to do everything possible to reduce its contribution AND complete other projects in the watershed to ensure the water complies.

5) **The Revised Rule fails to mention any update or change of an AMP over time, or what happens when an AMP becomes obsolete.**

Revised Rule Comments

The revised rule is not significantly changed from the version that we reviewed in April 2022, and therefore many of our comments made here will echo our verbal comments made in Work Group meetings in response to the earlier draft.

1. Mont. Code Ann. 75-5-321(1) requires DEQ to adopt rules "related to narrative nutrient standards in consultation with the nutrient work group." The rules provided by DEQ have not been developed "in consultation with the nutrient work group," rather, much of the draft language provided by work group members has been dismissed in favor of DEQ's preferred language, which results in a regulatory scheme that differs greatly from that sought by many work group members.

2. We appreciate the change from referring to ARM 17.30.637(1)(d) and (e) to referring to ARM 17.30.637(1)(e). Removal of subparagraph (d) is an important and necessary step for dischargers faced with nondegradation concerns. It should be clear that the numeric nondegradation determinations provided in ARM 17.30.715(1)(c) and (f) no longer apply. However, the term "narrative nutrient standards" does not equate to the general prohibitions found at ARM 17.30.637, nor does the legislative history support DEQ's reliance upon the general prohibition as a permanent narrative nutrient standard. SB358 specifically allowed use of the general prohibition only "until" the new rules are adopted. SB358, § 2. The Revised Rule permanently equates "narrative nutrient standards" with the general prohibition, contrary to the plain language of 75-5-321(1) and SB358.

3. New rule I(1) remains written as DEQ "may include limitations and conditions" consistent with the AMP and "must" include limitations and conditions "derived to achieve the narrative nutrient standards." It is not clear, but it seems to leave the door open to the use of numeric numbers based on the ecoregional ranges in spite of and in conflict with AMP conditions developed through the watershed approach. Perhaps that is how DEQ wanted to signal that the AMP is an option for the permittee, but the rule is not clear and could be interpreted to require an AMP for all situations where P prioritization is not enough and RP exists.

4. The rules "shall provide for the development of an adaptive management program that provides for an incremental watershed approach for protecting and maintaining water quality." 75-5-321(2). The Revised Rule provides a regulatory program using "individual adaptive management plans," large river modeling, and DEQ development of large river permit limits, placing the focus solely on point source dischargers. That approach improperly limits the Adaptive Management Program to the "discharge" and does not extend to the "watershed." 75-5-401. Likewise, the revised rule does not and cannot provide an approach that "reasonably balances all factors impacting a water body" or that "protect[s] and maintain[s] water quality" because it is limited only to point source dischargers. A better option was presented in the point source dischargers' recommendations that allowed for a site-specific process to first confirm uses within the watershed, consider the ambient or natural background level of nutrients in the watershed, determine what level of nutrients supports the most sensitive use, then determines what, if any, limitations or requirements should apply to dischargers.

5. The Adaptive Management Program must "reasonably balance all factors impacting a water body." 75-5-321(2)(a). The Revised Rule fails to do so because it is limited to point source permitted discharges. For example, the Revised Rule fails to consider, on a watershed scale, the impacts of temperature, flow patterns, light levels, and grazing on algae and plants by fish and aquatic insects as other factors that impact algae growth. See Supplee, Watson, Varghese, Cleland, Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers, pp. 1, 7-9 (November 2008). Having a permittee (through a nutrient off-set) or the landowner (through a voluntary program) address those non-nutrient factors directly, for example by planting trees along the bank of a stream, should also be allowed as a response to findings of unhealthy response variables. Reduction in nutrients is not the only way to improve stream health.

6. The Revised Rule I fails to take "into account site-specific conditions" when prioritizing the minimization of phosphorus, as required by 75-5-321(2)(b). Instead, the Revised Rule (2)(a) borrows some (but not all) elements from the federal rule governing reasonable potential analyses of permitted discharges. 40 CFR 122.44(d)(ii). As such, the analysis provided in rule becomes discharger-specific, rather than site-specific, as required by statute. The site-specific characteristics noted in Comment #5 above should be considered, as well as site-specific nutrient uptake mechanisms and attenuation. Consideration of dilution should not be limited; rather, nutrient sources should be considered to be diluted with 100% of the average seasonal flow.

7. Revised Rule I(2)(b) and (c)(i) require translation of "narrative nutrient standards for the ecological region in which the facility is located." Neither SB358 nor 75-5-321 authorizes a "translation" from ecoregional ranges of total nitrogen and total phosphorus. Instead, 75-5-321(2)(c) requires the rules to identify "appropriate response variables affecting nutrients and associated impact thresholds in accordance with the beneficial uses of the water body." There is no apparent difference between the previous system that used numeric standards, which were the ecoregional values, to determine permit limits and the proposed system that will translate the narrative standard using the ecoregional values to determine permit limits. Therefore, the proposed revised rule seems to provide nothing new. See also comment #2 above regarding improper reference to "narrative nutrient standards" as equal to the general prohibitions found at ARM 17.30.637(1)(e).

8. Revised Rule I(2)(b) and (c)(i) require protection of the "most sensitive beneficial use in the applicable ecological region." SB358 requires protection of "beneficial uses of the water body." 75-5-321(2)(c). Regulation of nutrients was designed to support recreational use and the rule should ensure that remains the sole focus. Including the "most sensitive beneficial use" inappropriately implies that a nutrient standard directly protects other uses, which has not been established. It may indirectly protect other uses because it ensures other standards (i.e.: Dissolved Oxygen and pH) are met, but it should not replace those other standards.

9. Downstream water quality standards must be considered when "designating uses of a water body and the appropriate criteria for those uses." 40 C.F.R. 131.10(b). Revised Rule I(2)(b) improperly conflates criteria-setting with calculation of effluent limitations. The consideration of downstream uses must take place during criteria development. By skipping that step and instead considering downstream uses when setting effluent limitations, Revised Rule I(2)(b) impermissibly places responsibility for compliance with downstream standards solely on permittees.

10. Revised Rule I refers to "assumptions and elements of individual adaptive management plans" without detail and without any authority for such "requirements" or authority to carry such "assumptions and requirements" into an MPDES permit. When read with Circular DEQ15, it appears that the individual adaptive management plan is merely one of three options (the other two are a variance and compliance schedule) for permittees to comply with "narrative nutrient standards." While variances and compliance schedules may be appropriate implementation tools in certain contexts, the statute requires an adaptive management program as part of setting narrative nutrient standards. The Revised Rule therefore conflates implementation tools with the specific standard-setting tool required by statute, which is the Adaptive Management Program.

11. The Revised Rule I(2)(b) impermissibly and without authority seeks to expand DEQ's permitting power to include provisions beyond those necessary to govern the "discharge." 75-5-401; 40 CFR 122.1. There is no authority within the MPDES or NPDES program to require a discharger to "examine all possible minimization activities which may reduce nutrient concentrations in the effluent." Those could be steps in a voluntary AMP that we are not necessarily opposed to, but they should not bleed into DEQ's permitting actions.

12. Revised Rule I(2)(c) impermissibly and without authority seeks to expand DEQ's permitting power to include provisions beyond those necessary to govern the "discharge." 75-5-401; 40 C.F.R. 122.1. There is no authority within the MPDES or NPDES program to require a discharger to complete the "implementation plan" required in Revised Rule (2)(c)(ii)(A) through (I) and Revised Rule (3)(d). Nor is there authority for DEQ to require one discharger to work with another discharger on such an "implementation plan." Those could be steps in a voluntary AMP that we are not necessarily opposed to, but they should not bleed into DEQ's permitting actions.

13. The Revised Rule should provide for consideration of the nonanthropogenic or naturally occurring conditions, which are prevalent throughout Montana, prior to implementing permit conditions. See 75-5-222 and 75-5-306. The Revised Rule should also clearly provide for consideration and revision, as necessary, of applicable TMDLs.

14. The Revised Rule fails to consider "the economics of waste treatment and prevention" which is required when adopting water quality standards. 75-5-301)(2).

15. The Revised Rule (1) remains written as DEQ "may include limitations and conditions" consistent with the AMP and "must" include limitations and conditions "derived to achieve the narrative nutrient standards." The rule is not clear and could be interpreted to require an AMP for all situations where P is prioritized and RP exists, even though the ecoregion value would be applied end-of-pipe in the permit and the discharger would have reason to enter an AMP.

16. For all AMP situations (wadeable streams, medium rivers and large rivers), if P prioritization is not enough and if RP exists, then an implementation plan is required. See Revised Rule I(2)(c)(ii) and Revised Rule I(3)(d). The implementation plan should not be required if the AMP participant chose to pursue a variance, compliance schedule, reuse, trading, recharge or land application as allowed pursuant to Revised Rule I(4).

Circular 15 Comments

The Circular is like the version we saw in earlier presentation and again, our comments mimic our verbal comments provided during the meetings.

1. The introduction asserts that if P prioritization is appropriate and works to maintain the narrative nutrient standard, the discharger will remain bound to comply with previous TN limits – even if there is no RP associated with TN. DEQ has asserted that is due to anti-backsliding requirements, but that ignores the language of the anti-backsliding provision and its exemptions – specifically where a new standard is promulgated, there is no requirement to continue regulation under the previous standard – not even for interim limitations. 40 C.F.R. 122.44(l)(1); 40 C.F.R. 122.62(3).

2. Section 1.0 Figure 1-1. The first box in this Figure should assess the degree to which a point source has already invested in nutrient treatment. If a discharger has already invested in biological nutrient removal (i.e. 10 mg/L TN and 1 mg/L) then an alternative flow path should be allowed where the discharger could consider additional actions developed in an AMP rather than triggering additional investment to tertiary treatment without considering the incremental benefit to the local waterbody of making that investment. When making that decision, a variety of factors should be considered including the net environmental benefit (SB 358 calls for an approach that reasonably balances all factors impacting a water body) of making that change (additional power and chemical consumption), whether the reduction in response variables is sensitive to that change, and lack of congruence between investment in septic tanks and point source treatment (driving a discharger to tertiary treatment would drive higher rates in the Cities and encourage development on septic tanks outside the service area).

3. Figure 1-1 shows that all AMP actions will become permit provisions and the responsibility of the point source discharger. This could make the point source discharger responsible for the stream's compliance with the ecoregional value chosen by DEQ regardless of whether and how much of the nutrients are caused by the point source discharger. Figure 1-1 also shows that RPA will be conducted prior to the AMP; thereby eliminating the possibility that the AMP would develop a standard that differs from the ecoregional values chosen by DEQ.

4. Section 1.0 Figure 1-1 shows "P limits based on eco region range" as an initial permitting step if there is reasonable potential. Using these values in discharge permits is a return to a numerical approach rather than a narrative approach as called for in SB358. These values referenced here are very low, based on large regions with values that are blind to local factors specific to each discharge including but not limited to: discharge location, ambient river conditions, and the current level of nutrient performance of the point source. Using ecoregion values as end-of-pipe limits would be costly, but not productive, to attain in many cases and would be technologically impossible for nitrogen.

5. Section 1.0 Figure 1-1 drives point source treatment plants to tertiary treatment for phosphorus immediately based on ecoregion values, rather than referencing a locally developed AMP to develop appropriate actions. This approach is a numeric approach rather than a narrative approach to compliance. This first step in the flow chart removes all incentives for a discharger to enter an AMP and in fact, provides disincentives to in the form of requiring additional monitoring even if the point source has made investment to the limit of technology.

6. The definition of "wadeable" on page 3 is vague. Previously, DEQ had used a more numeric-type definition, which might be easier to use and eliminate debate and argument.

7. Section 1.0 Figure 1-1 and Section 8.0 say that if P prioritization does not yield results, the permittee "must" develop and execute any AMP implementation plan. Small dischargers may choose at this point to apply for a variance instead. This should be added as an option at this stage.

8. Section 1.1, the definition of Adaptive Management Program still does not include consideration of other environmental impacts that could range from causing low stream flows by removing a point source discharge from the stream for land application to a harmfully high carbon footprint when the permit limits drive facilities to higher chemical usage or tertiary treatment.

9. Section 3.1, on page 5, discusses the use of "nutrient diffusing substrates" to determine if P prioritization is appropriate. Please provide a better description of what DEQ is contemplating here. The current description is difficult to understand.

10. Section 4.0, page 6 notes that different DEQ programs must use the same parameters, "but may have program-specific data compilation and analysis methods." Does this mean that all DEQ programs will use the same parameters and numbers associated with those parameters or is there a chance that a TMDL or WQA will be based on different levels and different data collection? If so, that seems counter-productive and onerous for a permittee to navigate. See also Section 7.4, page 23 which notes that different DEQ programs may use different nutrient numbers. The stream assessment methodology uses multiple metric approaches to determine stream health. The current permitting approach uses a simplified application of ecoregion values. A better approach would be to develop permit activities within the AMP based on the assessment methodology.

11. Section 4.2 lists nutrients as the only causal variable for causing high algae growth and/or macrophyte growth. However, other causal factors such as low streamflow, high temperature, or high light exposure are also causal variables which are not included in this analysis but offer avenues for improving stream health without costly additional treatment steps.

12. Sections 4.4.2 and 4.4.3 are vague and leave the determination of whether a discharge impacts downstream beneficial uses up to DEQ with little detail on how DEQ will make the determination. If there is a strong technical tie to a downstream water body, that could be included in the TMDL or other waterbody-specific analysis. Downstream connections should not be presumed in a broader standards document.

13. Section 5.0 describes an AMP monitoring plan, but fails to develop an AMP framework that informs discharge permitting actions like the discharge group proposed. The AMP that is described here is envisioned as additional monitoring performed by the point source and is given only to be used as an option for nitrogen compliance, rather than a plan that develops logical water quality improvement goals that are locally developed, make incremental progress and consider the whole watershed rather than focusing immediately downstream of a point source. The AMP monitoring plan as proposed by MDEQ could be interpreted as transferring responsibility for those assessments to the permittee.

14. Far field sites are included in the monitoring plan, but the proposed permitting approach does not include any provisions to use that monitoring data in a meaningful way. The AMP should allow the use of the data gathered by the point source from the far field sites to develop an action plan to improve water quality.

15. Section 6 requires the permittee to "examine all possible pollutant minimization activities" regardless of the existence or extent of RP due to the permittee's discharge. If the permittee can achieve the limit with minimal activities, then by what authority may DEQ require it to do more?

16. Page 19, DEQ estimates that it will take 3-5 years to determine whether the discharger is in compliance with the new standard. This is a legal risk for the permittee during the interim.

17. Section 7.1 Table 7-1 The Macroinvertebrate metrics and ranges are not identified, and the dissolved oxygen delta is not defined. Column 4 "How the Parameter is Aggregated across Time" should ideally use seasonal averages. At a minimum, it should allow for monthly averages. If only one sample per month is collected, this single sample will represent the monthly average. However, if dischargers chose to collect more samples, they should average them over the season or, at a minimum, monthly.

18. Table 7-1 seems to be a collection of numeric levels that will become the applicable standard? Does this mean that the only clear compliance determination is if the waterbody meets all of those numbers; otherwise the permittee is in violation?

19. Table 7-7, Scenario D seems to hold the permittee responsible for AMP and implementation plans even though the water is not achieving the standard upstream or downstream of the point sources, regardless of the point source's contribution or lack thereof.

20. More information (thinking behind adding this section) would be appreciated for Section 7.3. What methods is the Department thinking of? What doors might this open for dischargers?

21. Section 7.4 states that ecoregion values shall be used "unless compelling waterbody-specific scientific information indicates a value outside of these ranges is protective of beneficial uses." This acknowledges our intent of having all permit limit development based on outcomes of AMP source characterization and sampling but puts this after the two first chances for placing limits in a permit as shown on Figure 1-1.

22. Why does Section 8.1 not follow establishment of RP as a first logical step in the AMP path to identify how best to approach stream improvement?

23. Section 8.1 requires the AMP to quantify all nutrient sources, which most NPS interests will not endorse.

24. Section 8.3.2 puts the responsibility for NPS reductions on the permittee, not the NPS, but Section 8.4 notes that permittees may choose to invest in NPS projects. However, when read with the New Rule, it appears that the permittee's compliance is equated with the waterbody's compliance, regardless of the sources contributing to the exceedance. Therefore, it opens the door to require the permittee to complete NPS reduction even after it has optimized and reduced its nutrient loading as far as possible. This puts responsibility for the entire waterbody's compliance with the standard solely on the permittee, which is beyond the jurisdiction of the WQA or the CWA.

25. Throughout the guidance and in Section 8.4, DEQ requires the permittee to provide "enforceable written agreements" for nutrient reduction projects. This likely means that the contract or other document will have to be provided to DEQ to determine whether it is enforceable. If the project then becomes a permit provision, it seems that DEQ will be able to force the permittee to enforce the agreement. This could become a problematic interference with contract, business and community relations.

26. Section 10 provides for TMDL revisions based on the AMP but should indicate that the standard may result in the need to revise other TMDLs for waterbodies where there is no AMP.

27. Section 10.3 allows for approval of the AMP as an Alternative Restoration Plan, confirming that the permittee will be responsible for watershed restoration.

28. The Circular expands its applicability to include wadeable streams and medium rivers, rather than just wadeable streams without explanation in the document or consultation with the nutrient work group on expanding the scope of the package from beyond wadeable streams.

29. The Circular advises the permittee to "consider any current department guidance on the subject" in 18 places. Question for the technical folks: Does the Guidance Document cover all 18 items or can we expect additional Department guidance? If so, does nutrient regulation become so complicated that it garners a disproportionate amount of DEQ's limited time and resources?

Comments on the "Narrative Nutrient Standards Permitting Handout" discussed at the March 13, 2023 Nutrient Work Group Meeting:

1. The first section ("MPDES Permits Must Include a Final Effluent Limit") should be limited to those situations where RPA is found.

2. The second bullet begins with "The narrative water quality criteria are based on achieving full support of all beneficial uses." This is contrary to the previous rulemaking which made clear that nutrient standards protect recreational use. Because they are so stringent, they also ensure the DO standards are met, which protect aquatic life, but we have not seen documentation that Montana's nutrient standards were promulgated to protect anything other than recreation. It is also contrary to DEQ's proposed new rule 1 which states that the narrative standard is ARM 17.30.632(1)(e), which requires water to be free from "substances attributable to municipal, industrial, agricultural practices or other discharges that will … create conditions which produce undesirable aquatic life." It does not require protection of all beneficial uses.

3. The second bullet seems to turn compliance determinations into water quality assessments, which is too onerous and not specific to the discharger.

4. The third bullet refers to a "narrative nutrient standards translator" but we do not see where that is defined. Is that the set of tables in Section 7 of the draft Guidance? If so, we have previously offered many comments and concerns about those.

5. The third bullet also provides that the ecoregional values will apply, which is contrary to the very purpose of SB358.

6. On the lower half of page 1, the third bullet in that section regarding anti-backsliding is wrong. When the standard changes, the interim limit can change and be less stringent than the previous permit's final limit. 40 CFR 144(l)(1); and 122.62.

7. Also, on the lower half of page 1, the 4th and 5th bullets illustrate the crux of the problem – the permittee will be required to show progress towards the final effluent limit. If that final limit is based on ecoregional values, then the permittee can show all the progress he can and still never meet those limits. Standards must consider "the economics of waste treatment and prevention." 75-5-301(2), MCA. The ecoregional values do not do that so they cannot be used as the standard. Also, effluent limitations must be "cost-effective and economically, environmentally, and technologically feasible." 75-5-304(2), MCA. The ecoregional values are not, so they cannot be used as limits without some economic, environmental and technology consideration.

8. Regarding the first timeline on the second page, we do not understand why the term "AMP Compliance schedule" is used – the two should be distinct. I also think the AMP Monitoring Plan will turn into a full blown Water Quality Assessment that DEQ must perform under Part 7 of the WQA. If so, it is inappropriate for DEQ to require the discharger to take on that responsibility.

9. Regarding the second timeline on the second page, the discharger should be "capped at current performance" only if there is RPA and only to the extent necessary to avoid causing an exceedance. Similarly, optimization should not be required in all cases, there needs to be good reason for it. That first 2023 bullet implies that DEQ is embarking on a blanket "nutrient reduction" program instead of applying a standard. That is a policy decision that the state has not made and is contrary to SB358.

10. Also on that second timeline, the 2038 bullet refers to AMP eligibility, but we don't recall reading anything about specific eligibility qualifications. We thought the AMP was voluntary and open to all dischargers. We don't know why the word "eligible" was used or what it means.

Thank you for the opportunity to comment. We look forward to discussing these further with DEQ representatives.

Sincerely,

Kelly A. Lynch
Executive Director
Montana League of Cities and Towns

Matt Vincent
Executive Director
Montana Mining Association

Alan Olson
Executive Director
Montana Petroleum Association

Peggy Trenk
Executive Director
Treasure State Resources Association