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May 9, 2018

The Colorado Mining Association (CMA) offers the following comments on the Water Quality Control Division's (WQCD) draft Colorado Discharge Permit System (CDPS) Permit for Trapper Mine, CO0032115. The draft permit contains a number of substantive modifications from previous permits that are indicative of significant changes in the policies, positions, interpretations, and overall approach to permitting by the WQCD. If these changes were to be applied statewide, CMA believes they would have significant impacts on all mining operations as well as other types of industry in Colorado.

Coincidentally, the draft permit was issued nearly concurrently with the WQCD's Annual Report to the legislature as required by HB17-1285 Refinance Water Pollution Control Program Act. This report cites to a significant permitting backlog at the State level. The report indicates that to some extent this is caused by the individual permit renewals, which are described as "extremely complex" and requiring several months to process, and sometimes subject to significant litigation. Trapper Mine's draft permit is yet another example showing that the permitting backlog and the ever-increasing complexity of the draft permits is at least partially self-inflicted.

For example, there were no significant changes to State water quality regulations that could be used to justify the enormous increase in the requirements seen from the previous permit to the current draft. CMA is also not aware of any formal changes in policy that could explain such change. Likewise, there were only minimal modifications to the mining operation itself through the addition of new outfalls as mining advances, which would be considered a standard change at any mining operation. Throughout the previous 41 years of operation, Trapper Mine has operated at a high level of environmental stewardship, evidenced by its compliance history and the number of State and National awards received. In fact, the history of compliance and the lack of environmental impacts at this facility ought to qualify it for a permit renewal with "minimal or no change", as directed by Regulation 61.1(5) which addresses risk based permitting. It is clear that the WQCD has ignored the original intent of this regulation and issued a draft permit with significant new requirements and far-reaching changes that threaten to put the operation in a position of noncompliance, with little or no benefit to the environment being realized.

The following comments can be broadly categorized as comments on either 1) policy changes or 2) duplicative or overly-stringent requirements.

1. Broad Policy Changes:

1.a. Extreme application of downstream classified uses

The draft permit applies classified uses of downstream reaches to the Trapper Mine outfalls, reaching so far as 7 miles downstream of the outfall to determine the appropriate “receiving water”. In so doing, the WQCD applies the more stringent standards of the Yampa River to the upstream outfalls, rather than the more representative standards of the ephemeral draws that receive the direct discharge from the outfalls. Consistent with previous CMA comments on this issue, there need to be reasonable limitations set on how far downstream the WQCD should reach for applicable classified uses (and designations). The degree of influence that upstream discharges have on downstream waters is highly site-specific, dependent on factors such as dilution, effluent flow, watershed size and slope, chemical concentrations, and stream / groundwater interaction. The numerous site-specific factors that affect the transport of pollutants downstream are accounted for when stream segment boundaries are set. Therefore, the segment boundaries should be adhered to and discharges should be subjected to the standards of the immediate receiving stream segment unless there is *clear and convincing evidence* that shows those discharges are preventing attainment of downstream uses.

The WQCD has made no showing that Trapper Mine’s occasional discharges have reasonable potential to significantly influence or to adversely affect the Yampa River. In reality, the intermittent discharges of Trapper Mine are likely lost as transmission losses to the alluvium in the ephemeral draws that convey Trapper’s discharges downstream. Most discharges at Trapper Mine are likely limited to times of significant precipitation or snowmelt events. During these seasons, if a discharge were to reach the Yampa River, it is reasonable to expect the Yampa River would also be flowing at a proportionally elevated level, completely attenuating any discharge from the mining operation.

In this case, the WQCD has reached 5 to 7 miles down these ephemeral draws to impose these requirements. This nearly eliminates the need to designate stream reaches at all. Under this approach, it would be easier to assume that all stream reaches should be subject to all designated uses. Further, what is to stop the WQCD from reaching 10 miles or 20 miles downstream to determine appropriate uses in the future? The implications of this policy change are significant not just on Trapper Mine, but for the regulated industry in general, including primarily the application of numerous new effluent limits with reduced concentrations. WQCD should remove the application of the downstream Yampa River segment on these outfalls or provide some evidence that these outfalls have *reasonable* potential to significantly influence water quality on the Yampa River. Unless there is evidence that the previous 41 years of regulation have adversely impacted the downstream aquatic life, there is no justification for this change in policy.

1.b. Denial of mixing due to T&E species

Not only does the WQCD apply overly-stringent effluent limits to the operation, but they prohibit the use of dilution to relax those limits based on the presence of Threatened and Endangered (T&E) Species in the Yampa River. While a T&E species exists, the mine does not discharge directly to the Yampa. Instead, the rare discharges that do occur are to ephemeral drainages located 5 to 7 miles upstream of the Yampa River. Additionally, the impacts to the T&E species are primarily a result of habitat, water diversions, and competition with non-native species.

The Colorado Mixing Zone Guidance, which addresses consideration of T&E species, does not explicitly prohibit use of dilution on these streams. Instead, the guidance requires *consideration* of T&E species and collaboration with the U.S. Fish and Wildlife Service (USFWS) on whether mixing zone should be provided. In fact, the guidance provides for three general options: 1) application of dilution based on use of a diffuser, 2) application of dilution or application of end-of-pipe limits, depending on a technical evaluation, or 3) application of dilution after relocating the discharge. Unlike the options conceived in the guidance, the WQCD provided Trapper Mine with no alternatives or potential for relief.

Also contrary to the guidance, the WQCD did not provide any evidence of collaboration with USFWS or indication that USFWS showed particular concern with this reach of the stream segment, with Trapper Mine's discharge volumes, or potential pollutants of concern. In fact, there is no mention of any evaluation at all, but instead an upfront prohibition on even the slightest idea of dilution. This is but another example of changes in unwritten WQCD policy with no justification or written policy change. And here again, the WQCD chose to take the most extreme position on the issue.

1.c. Numeric flow limits

Although not entirely a new requirement, the Division applies flow limits to Trapper Mine's outfalls. This requirement was originally imposed in 2012 but not in response to a written change in the regulations or policies change. In this case, the Division cites the regulatory requirement and contends that the regulations were overlooked during previous permits. It is hard to believe that the regulations were completely overlooked during the operations' previous 35 years. Instead, the application of flow limits in the draft permit and other mining permits around the State appears to be a *change in interpretation* of the regulatory requirements.

Previously, the WQCD relied on monitoring and reporting of flow, which CMA argues is sufficient to satisfy the regulatory language that requires all pollutants have "limitations, standards, or prohibitions expressed in terms of concentration and mass or concentration and flow" at Regulation 61.8(2)(i)(i). This is the most sensible approach for mining operations, most of which cannot control flow volumes when flowing in response to rainfall or snowmelt events. This issue was at least considered when this regulation was put in place, exempting permit limits on a case by case basis when mass cannot be related to a measure of operation (e.g. discharges of TSS from mining operations). Nonetheless, the WQCD continues to push the more recent *reinterpretation* of this regulation, placing infeasible flow limitations on discharges over which the permittee has no control. CMA requests that the WQCD remove the flow limitations and instead work with Trapper Mine and other mining permittees to propose alternative measures that achieve the same level of environmental protection and ultimately the same overall result.

1.d. Stormwater requirements: applicability

The WQCD has proposed numerous confusing, duplicative, and onerous requirements in the draft permit. There appears to have been a major shift in the approach to stormwater and process water regulation at mines sites. It should be noted that there is an extensive State regulatory framework promulgated under the Colorado Surface Coal Mining Reclamation Act (SCMRA) with a major focus on minimizing impacts to the hydrologic balance, and more specifically, stormwater control. With the drafted requirements, the WQCD is

duplicating and overlapping with the responsibilities of the Colorado Division of Reclamation Mining and Safety (DRMS). See C.R.S. § 25-8-202(7).

First, there are numerous outfalls at the mine site where the WQCD has applied numeric effluent limits under Part I.C.1, herein referred to as Effluent Limitation Guideline (ELG) requirements, and requirements typically associated with stormwater permits including practice-based effluent limitations (Part I.C.4), control measures (Part 1.F), inspections (Part I.G), corrective actions (Part I.H), the Stormwater Management Plan (Part I.I), and reporting and recordkeeping (Part I.K.3), herein referred to as “stormwater requirements”. This approach results in duplicative regulation and overlaps requirements from separate parts of the Clean Water Act. ELG requirements apply to the majority of the area on a mine site. The ELG requirements are applied to the area that is routed through sediment ponds for treatment prior to discharge including alkaline mine drainage areas, prep plant areas, and post-mining areas. However, there are ancillary areas that are disturbed where either it is not possible or does not make sense to route the water through a sediment pond. In these areas, such as haul roads or conveyor corridors, if runoff has potential to come into contact with coal or overburden, the stormwater requirements should typically apply. Application of both sets of requirements is against the initial intent of the regulations and results in overregulation of the entire site.

1.e. Stormwater requirements: construction permit

Second, it is difficult to determine where on a mine site the stormwater requirements apply and where WQCD intends to require Trapper Mine to obtain additional permit coverage under a separate construction permit. The draft permit appears to require that any construction activity with disturbance greater than 1 acre in area is required to obtain separate coverage under a CDPS construction permit. It is infeasible to regulate disturbances greater than an acre through separate permitting actions at mines sites, which are typically on the order of thousands of acres of total disturbance. Even relatively small disturbance activities, such as construction of new haul roads or access roads, sediment ponds, equipment staging areas, or conducting exploration drilling, will be likely to exceed the one acre threshold. Any minor operational change at a facility would require approval of a mining permit modification under DRMS regulations and now, an additional permit approval under WQCD regulations. Such an approach is inefficient and ultimately unworkable for both permittees and the regulatory authority.

As its basis, the WQCD cites to EPA’s federal ELG for the construction and development point source category under 40 CFR Part 450. The WQCD has ignored the fact that even EPA has addressed both construction and mining activities at coal mine operations with one permit since the 2008 Multi Sector General Permit (MSGP). The most recent issuance of the Federal MSGP (2015) contains requirements for all phases of the coal mining operation including construction, active mining, and reclamation. This approach essentially allows coverage under the MSGP for any and all activities that were not already covered by a NPDES permit (e.g. haulroads, access roads, conveyors lines, and disturbed areas where drainage to an NPDES basin is infeasible). Federal EPA went even further by recognizing the overlap with the mining regulations in the most recent Federal Multi Sector General Permit (MSGP), which states “Where compliance with a requirement in a separate exploration permit, mining permit, reclamation plan, Surface Mining Control and Reclamation Act (SMCRA) requirements, etc. will result in you fully meeting any requirement in this Subpart, you are considered to have complied with the relevant requirement in this Subpart.”

1.f. Application of TDS “standards”

The WQCD has proposed TDS limitations for the protection of livestock watering. However, the State does not have an approved water quality standard for TDS and livestock watering in Regulation 31. While CMA recognizes that the WQCD is obligated to protect existing uses of State waters, the WQCD has not provided any evidence that existing uses are not protected and has not justified the level of protection that is proposed in this permit. First, Trapper Mine’s 41 years of operation alongside managed grazing practices ought to be evidence enough that TDS limitations are not necessary. Second, the WQCD has provided no evidence for how it determined that a concentration of 3,500 mg/L was necessary to protect livestock. As outlined in Trapper Mine’s comments, TDS concentrations of 5,000 mg/L are satisfactory for livestock. In fact, the same Colorado State University fact sheet indicates that concentrations up to 7,000 mg/L can be used with reasonable safety for dairy and beef cattle but should be avoided for pregnant or lactating animals. Lastly, even though the WQCD is aware of the difficulties associated with treating for TDS concentration, the WQCD continued to propose an infeasible effluent limit with no solution in mind. Regardless, the WQCD has circumvented the public participation and rulemaking process by imposing stringent effluent limitations with little justification and ultimately, no feasible treatment mechanisms.

1.g. Limiting upsets to TBELs

The applicability of upset conditions to effluent limits has been severely restricted in this permit with no justification and in direct contradiction to Regulation 61.2(114). As is explained in Regulation 61, the Commission has expressly determined that the upset condition is to apply to both water quality based effluent limits (WQBELs) and technology based effluent limits (TBELs). *See* Regulation 61.37. For the mining industry, the State has tightened effluent limits over time to the point that, where there are both TBELs and WQBELs for a parameter, the WQBEL will almost always be more stringent. If upsets only applied to TBELs, it would make the upset defense unusable. Applying upsets to one type of limit and not the other has no basis, and is contrary to Regulation 61.

1.h. Demonstration of spoil springs

The draft fact sheet indicates that Water Quality Policy 1 - Permit Inactivation Where a Discharge Remains (WQP-1) requires the WQCD to conduct an analysis to determine if a spring attains the water quality standards that are in place at the time the area is Phase II bond released. In the case of Trapper Mine, the WQCD took a reasonable approach to the demonstration and reached the appropriate conclusion. Nonetheless, this practice appears to be at odds with State SCMRA regulations and the Federal counterpart which require instead that the operation minimize disturbances to the hydrologic balance at the mine site, prevent material damage to the hydrologic balance outside the permit area, and that discharges not cause exceedances of standards in the receiving stream. While CMA recognizes that the WQP-1 has been in place since 1981, the practice of demonstrating water quality at groundwater / surface water features within the reclaimed area at Phase II release appears to be a new requirement under this policy. CMA requests that WQCD clarify the basis of this policy, how this policy and the required water quality demonstrations interplay with existing obligations under SCMRA regulations, and why Phase II was chosen as the required timing for the demonstration.

2. Duplicative or Overly-Stringent Requirements:

2.a. Stormwater requirements

As noted in 1.d above the WQCD is applying numerous stormwater requirements on a wide scale at this operation. As directed by C.R.S. § 25-8-202(7), WQCD should recognize the numerous controls put in place under the mining regulations that are continuously reviewed during onsite DRMS inspections, sediment pond and impoundment inspections, rill and gully surveys, and preparation and review of annual monitoring reports. In fact, sediment and stormwater control are engrained in the basic operation of mining facilities, such as minimizing disturbed area, special handling of materials, development of a surface water control plan, etc. Additional regulatory requirements that address these specific issues include Spill Prevention Control and Countermeasure (SPCC) regulations and Resource Conservation and Recovery Act regulations (RCRA). The WQCD should not impose additional duplicative regulation over all these pre-existing programs, creating a significant paperwork burden and enforcement liability but resulting in no actual on-the-ground benefit.

2.b. Continuous flow monitoring

Installing continuous flow monitoring at all outfall locations adds significant cost to a facility. The scale and amount of data collection, calibration, maintenance, and ongoing QAQC that would be required for a mining operation to maintain continuous flow monitors may require an additional employee. This is particularly true in the State of Colorado, where the winter conditions will likely require annual removal and reinstallation. There is no justification for this type of requirement. Periodic monitoring with approved methods for estimating or measuring flow is sufficient to accurately and representatively characterize effluent flows for the majority of operations.

2.c. Increased monitoring frequency and parameters

Monitoring frequency and monitoring parameters were increased dramatically from the previous permit without any justification. There was no showing of environmental impact, no analysis of outfall variability, and no basis for the sudden expansion of the pollutants of concern at a typical coal mining facility. When EPA developed the effluent limitation guidelines for the coal mining industry, numerous metals and organics were evaluated from a spread of facilities that had only minimal environmental controls in place at the time. Even under those “worst case conditions”, EPA determined that periodic monitoring for a limited set of indicator parameters would provide adequate environmental protection. If those indicator parameters show frequent exceedances, there could be reason to monitor for other parameters of concern. The WQCD has instead taken a shotgun approach, requiring monitoring for any and all pollutants, which is a costly and unnecessary exercise.

2.d. Organics plus oil and grease

The WQCD’s addition of 16 organic parameters, in addition to the standard oil and grease visual / analytical sampling requirement, is another example of an overly restrictive requirement. While the monitoring is only annually, it is just another requirement that must be tracked in what is already an extremely complicated sampling and reporting schedule. The WQCD only indicates that these organic pollutants are “reasonably expected” to be present in the effluent of outfall 002 but has not provided any other evidence. Was there an inspection conducted that led to these requirements? Was there a positive oil and grease test or visual

seen observed during the previous permit term? If not, this requirement has no real justification and should be removed from the permit.

In summary, the WQCD has drafted a permit for a mining facility that is heavy-handed with little justification. Numerous requirements appear to be significant changes in long-standing policies and practices but with no equivalent change in the regulation or written policy. Many of these policy changes have significant implications for the mining industry and regulated community in Colorado and should be subject to public process. Additionally, there are numerous requirements that are overly-stringent and will increase mine staff responsibility with little or no realized benefit to the environment. This type of permitting, where requirements are added at even the slightest possibility of occurrence, is irresponsible and results in unreasonable and unworkable permitting requirements.

The idea of reasonableness is found throughout the Water Quality Control Act. For example, the draft requirements are outside the lines of what is considered “necessary to reasonably protect” the uses of these waters as intended by C.R.S. § 25-8-102. In the same way, the requirements do not have a “reasonable relationship” to the economic or environmental impacts of these measures as intended by C.R.S. §25-8-102. CMA requests that the WQCD consider Trapper’s history of environmental excellence and provide them with a *reasonable* permit that continues to provide the same high level of environmental protection and avoids overly restrictive requirements. CMA also invites the WQCD to discuss these apparent changes in policy and practice with the mining industry and State mining agency, rather than imposing such requirements on a case-by-case and permit-by-permit basis.

CMA appreciates the opportunity to provide comments on the draft CDPS permit for Trapper Mine, CO0032115. If you have any questions please contact Stan Dempsey at (303) 575-9199 or sdempsey@coloradomining.org.