

October 6, 2023

Joseph Harrington MineWater LLC 9233 Park Meadows Drive, Suite 108 Lone Tree, CO 80124

Re: Adequacy Review, 110d Hard Rock Amendment Application, London Mine, File No. M-2023-015

Dear Mr. Harrington,

The Division of Reclamation, Mining, and Safety (Division) has reviewed the content of the amendment to the 110d Hard Rock Designated Mining Limited Impact Operation Reclamation Permit Application for the proposed operation for the London Mine (File No. M-2023-015) submitted by MineWater LLC (Applicant), and submits the following comments. **The Division is required to make a decision on the application no later than** <u>October</u> <u>31, 2023</u>, therefore, a response to the following adequacy review concerns should be submitted to the Division as soon as possible. If more time is needed to respond to this Adequacy Review, the Division can grant an extension of the decision date deadline following a request by the Applicant. Please respond to this Adequacy Review with the requested information by summarizing each response to the numbered items below, in a cover letter titled "Adequacy Review Response; M-2023-015" and providing replacement exhibits, as necessary.

GENERAL APPLICATION PROCEDURES

- 1. As required by Rule 1.6.2(1)(g), please submit proof of publication of a public notice in a newspaper of general circulation in the locality of the proposed mining operation.
- 2. As required by Rule 1.6.2(1)(g), please submit proof that the public notice was provided to all owners of record of surface and mineral rights of the affected land and to the owners of record of all land surface within 200 feet of the boundary of the affected land. Proof of notice may be return receipts of a certified mailing or by proof of personal service.
- **3.** The Division received comment letters from Colorado Parks and Wildlife and History Colorado regarding the application. The letters are attached for your review. Please acknowledge and address any comments noted in the letters and make changes to the application as necessary.

EXHIBIT C – Mining Plan (Rule 6.3.3)

4. The Applicant is proposing to construct a storm water containment berm along the southern edge of the processing area to prevent off-site impacts. The processing area will be graded to the north where storm water collects in a ditch which flows to a sediment pond before being discharged into an off-site CDPS Pond. In order to ensure no unauthorized release of pollutants occur to off-site lands, the Applicant will need to propose additional sediment control features around the mineralized fines stockpile(s). These additional features around the base of stockpiled mineralized material would also serve as a redundant and "backup" measure as required by Rule 6.4.21(7)(e) to prevent and mitigate releases of toxic or acid-forming materials from the containment facility.



EXHIBIT D – Reclamation Plan (Rule 6.3.4):

- 5. The Applicant is proposing the final reclamation slope of the backfilled inert material will be sloped at 2H:1V. As final reclamation slopes are typically 3H:1V or flatter, the Applicant will need to propose additional erosion control measures to ensure the reclaimed slope is stabilized until revegetation occurs.
- 6. The Reclamation Plan does not address how the site will be revegetated. In accordance with Rules 6.3.4(1)(c)(ii)-(vi), please provide the measures that will be taken to revegetate the site.
- 7. The Applicant has proposed to salvage and test potential growth media located underneath the South London Stockpile and will replace 3 inches of material to aid in the revegetation of the backfilled/disposed inert material generated from the processing plant. The Applicant will need to address the following item regarding this growth media salvaging and testing plan:
 - **a.** In accordance with Rule 6.3.2(a), provide specific details regarding the soils of adjacent undisturbed areas. This information may be obtained from <u>https://websoilsurvey.nrcs.usda.gov/</u> by providing a soil map and soil unit profile description printouts.
 - **b.** Provide any known information regarding the topsoil depth replacement and revegetation success of the reclaimed London Mine tailings located off-site to the southeast of the processing area.
 - c. Please provide a discussion on any projected impacts (compaction, loss of nutrients, heavy metal contamination, etc.) that the South London Stockpile has had on native material underneath the stockpile for the substantial amount of time the stockpile has existed.
 - **d.** A commitment to analyze the salvaged material for TAL metals and provide the results within one year of permit issuance to ensure replacement of this material on the surface does not have a negative impact to off-site areas.
 - e. A discussion of possible solutions in the event that salvaged growth media is of insufficient quantity or quality with a commitment to submit a technical revision to address the issue prior to implementation of any solution.
- 8. The Applicant has committed to sampling the mineralized fines which will be generated from the screening and crushing operations and will then develop an appropriate handling/disposal plan to be submitted as a revision to the permit. The Applicant has committed to a 10,000 CY maximum amount of fines to be stockpiled on-site before obtaining approval of the handling/disposal plan revision. The Division's reclamation cost estimate will need to account for the off-site disposal of these stockpiled mineralized fines until the handling and disposal revision is approved. In accordance with Rule 6.3.4(2), please provide a thorough cost estimate for the off-site disposal of 10,000 CY of mineralized fines.

EXHIBIT E – Map (Rule 6.3.5)

- 9. The Exhibit E Maps will need to be revised and resubmitted for review based on the following issues:
 - **a.** Maps are not signed as required by Rule 6.2.1(2)(b)
 - **b.** The scale on the three maps all are listed at 1":10' which appears to be a typo because based on the original size of the maps provided and the scale bar, 1 inch appears to represent 100 feet.
 - **c.** None of the maps contain the surface/subsurface ownership information, surface ownership within 200 feet of the permit boundary, and structure owner as required by Rule 6.3.5(2)(b).
 - **d.** The storm water collection berm located in the southeast processing area extends beyond the permit boundary. Additionally the labels in this area appear to be incorrect as the permit boundary is identified as the berm and the berm is unlabeled.
 - e. The legend identifies storm water berms as a solid blue line, however it appears the berms are shown as a solid orange line.

EXHIBIT F – List of Other Permits and Licenses Required (Rule 6.3.6)

10. Within Adequacy Review Response #1B, the Applicant stated Appendix A included an email from Park County to address the approval/agreement which allows the haulage of material with heavy equipment on the road and any discussion regarding maintenance and repair. Upon review of the email, the Division was unable to locate this information. Please provide a demonstration that Park County has authorized the haulage of mine material with heavy equipment on County Road 696 between the two permit areas.

EXHIBIT I – Proof of Filing with County Clerk (Rule 6.3.9):

11. Any changes or additions to the application on file with the Division, must also be reflected in the public review copy. Please submit proof that the public review copy has been updated with a copy of the response to this adequacy letter.

EXHIBIT L – Permanent Man-made Structures (Rule 6.3.12):

- 12. Within Exhibit L, the Applicant has identified Xcel Energy as the owner of several overhead electric lines within 200 feet of the affected lands boundary and has provided a 2017 Construction Agreement and a partial 2023 Structure Agreement. The Division was not able to locate the necessary information within the 2017 Construction Agreement to meet the requirements of Rule 6.3.12. Additionally, the 2023 Structure Agreement was only signed by the Applicant. Please either demonstrate where Rule 6.3.12 is addressed within the 2017 Construction Agreement or provide the rest of the 2023 Structure Agreement.
- 13. Please provide documentation which complies with Rule 6.3.12 for County Road 696.

EXHIBIT U – Designated Mining Operation Environmental Protection Plan (Rule 6.4.21):

14. The Applicant has committed to sampling the mineralized fines for Acid Base Accounting (ABA) and Synthetic Precipitation Leachate Procedure (SPLP). The Applicant has also committed to submitting the results to the Division through a revision to the permit to direct how the fines will be handled and disposed. In addition to the proposed tests above, the Applicant will need to include sampling for TAL metals. Listed below is a list of analytes and the EPA's 2023 Reginal Screening Levels for industrial soil for the results to be compared to:

Industrial Soil (mg/kg)			
Aluminum	1,100,000	Magnesium	
Antimony	470	Manganese	26,000
Arsenic	10^{+1}	Mercury	46
Barium	220,000	Nickel	11,000
Beryllium	2300	Potassium	
Cadmium	100	Selenium	5800
Calcium		Silver	5800
Chromium	(Cr VI) 6.3	Sodium	
Cobalt	350	Thallium	
Copper		Vanadium	5800
Iron	820,000	Zinc	350,000
Lead	400+2	Cyanide	1500

⁺¹: CDPHE has identified 10mg/kg for arsenic as background levels for mining

⁺²: 400 mg/kg for lead was obtained from the EPA's Generic SSL ingestion/inhalation

- **15.** Please submit a complete and concise sampling plan for the mineralized fines for the Division to review and approve which addresses the standard steps of Data Quality Objective Process.
- **16.** The Applicant has provided three sample results of the existing waste rock stockpile within Exhibit U. These results are numbered -001, -005, and -016. Please explain this numbering sequence as it appears there were at least 16 samples taken with only three results provided.
- 17. Within Exhibit U, Section (6), the Applicant states a mineralized dust product (less than 3mm) will be produced from the screening process and will be hauled to an off-site mill for processing. Please provide details on how the stockpiled mineralized dust will be protected from wind and water erosion.
- **18.** Within Exhibit U, Section (6), the Applicant states that if ABA testing indicates the fines are acid-forming, then amendment of fines will be conducted with the addition of lime or limestone. Please note, the sampling results and revised plan will need to be submitted to the Division and approved prior to implementation.
- **19.** Within Exhibit U, Section (7), the Applicant states no stockpiles of mineralized materials will be left on operations pad for a significant length of time. Please define "significant amount of time" by specifying the maximum amount of time stockpiles of mineralized material may remain on site.
- **20.** The Applicant has proposed to haul material that is sorted from the x-ray processing facility as inert material back to the South London Stockpile for backfilling/disposal. Exhibit U provides the results of lab-scale whole rock analysis of five samples of the projected inert material. Please provide a sampling plan to demonstrate the accuracy of these lab-scale tests and the actual results of the x-ray sorter. Please note, the Division believes after the initial sampling of ABA, TAL, and SPLP is conducted on the inert material, the continued sampling plan frequency does not need to be as often as the mineralized fines.
- 21. The Storm Water Management Plan has specified all berms/windrows to be at least 24 inches in height to contain the design storm event, however the plan lacks specific details on the sediment pond within the processing area. Please note, Exhibit E Maps do indicate this feature to be 10 feet deep, but there is no further information regarding the length and width nor capacity. In accordance with Rule 6.4.21(7)(f) and Rule 6.4.21(10)(a), please update the permit and SWMP accordingly.
- 22. As required by Rule 6.4.21(8)(a) locate on a map, in Exhibit E, all tributary water courses, wells, springs, stock water ponds, reservoirs and ditches, on the affected land and on adjacent lands where such structures or waters are within two (2) miles, of the existing or proposed affected lands. The required information may further be limited to that area which can also be demonstrated by the Operator to lie within the local ground and surface water regimes that include the affected lands. Additionally, as required by Rule 6.4.21(8)(d), identify and locate on a map, in Exhibit E, known major fracture systems that affect rock formations under the proposed affected area.
- **23.** Within Exhibit U, the application materials do not include a demonstration of Rule 6.4.21(17) regarding plant growth medium. Please revise Exhibit U accordingly.

The Division will calculate the total required financial warranty for the site after the responses to this review letter are received. The Division will provide the Applicant a copy of the Division's reclamation cost estimate for review prior to the decision on the application. *No response needed.*

This concludes the Division's adequacy review of this application. This letter shall not be interpreted to mean that there are no other technical deficiencies in your application; other issues may arise as additional information is supplied. Please be advised the permit application may be deemed inadequate, and the application may be denied

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on October 31, 2023, unless the above mentioned adequacy review items are addressed to the satisfaction of the Division. If more time is needed to complete the reply, the Division can grant another extension to the decision deadline. A request for additional review time must be received no later than the deadline date.

If you have any questions, please contact me at 303-866-3567 ext. 8132 or elliott.russell@state.co.us.

Sincerely,

Elliott R. Russell Environmental Protection Specialist

Attachment:	CPW Comment Letter M202315	
	History Colorado Comment Letter M2023015	

Cc: Michael Cunningham, Division of Reclamation, Mining & Safety Bob Oswald, High County Consulting Services LLC Ben Langenfeld, Greg Lewicki and Associates