

To: Colorado Department of Reclamation Mining and Safety

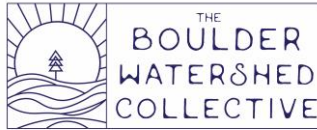
From: Maya MacHamer, Director Boulder Watershed Collective

Date: February 27, 2023

Re: Comments regarding Colorado Milling LLC's application for permit conversion (M M1994117).

Thank you for the opportunity to comment on the Colorado Milling LLC's application for permit conversion at the Gold Hill Mill (M M1994117). The Boulder Watershed Collective (BWC) works to cultivate partnerships, promote community stewardship, and revitalize social and ecological systems within the Boulder Creek watershed. BWC values the perspectives, priorities, and concerns of stakeholders within the watershed, including those of the applicant. Since the 2013 flood event, BWC has restored numerous mine waste piles within the Fourmile watershed to improve water quality. BWC is invested in the continuation of incremental improvements in watershed health from the natural trajectory of ecological improvements post wildfire (2010) and flood (2013), as well as the restoration efforts of numerous agencies over the years.

- The applicant's mine plan is vague regarding the quantity of mineral or overburden to be extracted in accordance with the permit, and whether the quantity limitations set forth under 34-32-110(2) will be maintained. See Application at Exhibit C, p. 7 "[T]here remains the potential to develop economically viable gold-silver resources that could be recovered by selective underground mining. It is not possible at this time to comment upon the size or grade of these potential zones."
- Section 1.3 Overburden/Waste Rock Management Plan states that no overburden will be excavated and that all ground disturbance has already taken place. The processing of existing tailings can further disturb areas, leaving residual waste rock or tailings exposed to surface water runoff and potential erosion. The reclamation plan in Exhibit D (p 223) states that "existing dumps and stockpiles...will be reclaimed in the same manner as surrounding disturbed ground." BWC would like reclamation to include revegetation with native species to improve the disturbed areas post operations.
- The mine plan also contemplates the removal and processing of historic mine dumps in the area with residual gold and silver. Again, the mine plan is unclear on the specific location or volume of the historic mine dumps and does not fully consider the impacts of removing and hauling these materials to its site. The applicant should assess the potential impacts of removal, hauling and processing of additional materials, including any potential impacts of these activities on the hydrologic balance and water quality of the surrounding area.
- Impacts from the removal of ore and other materials from the Cash Mine for processing at the Gold Hill Mill will directly result from approval of the Gold Hill Mill conversion application. These impacts, including any impacts to the surrounding hydrologic balance and water quality should be assessed and considered in the current application proceedings.
- Quarterly monitoring of the tailings storage facility (see Mine Plan at § 5.1.1 and Appendix C-2) is inadequate to prevent potentially significant impacts due to releases from that facility. The Division should also consider surface water monitoring requirements in order to identify any potential operational impacts to Left Hand Creek or Gold Run/Fourmile Creek. While other drainages feed these creeks, a suitable surface water monitoring program could be conducted to identify acute changes in water quality that may relate to the permittee's operations. Both Left Hand Creek and Fourmile Creek are drinking water sources for thousands of water users.
- Section 1.8 Groundwater and Surface Water, states that there is no ability to monitor surface water above and below the mine workings. Cash Gulch, a tributary to Gold Run Creek, originates in the Gold Hill Mill



area and discharges into Gold Run Creek. Dissolved zinc exceedances have been observed in surface water in Cash Gulch (2017). It is recommended that surface water monitoring be included in the monitoring plan. There are numerous shallow drinking water wells along the Gold Run and Fourmile Creek drainages which are heavily influenced by surface water.

- The applicant should provide additional detail on the operation of the Times Mine Bulkhead, including the impacts of any necessary emergency drawdown on the hydrologic balance and water quality in the area, and whether those operations will require a discharge permit. The Division should carefully consider the applicant's reclamation plan as it relates to the long-term maintenance of the bulkhead, and the ability to prevent water inflow to the mine workings and maintain appropriate pressures.
- Annual inspections of the tailings disposal facility are inadequate to confirm the tailings facility, which will be operated under new and more demanding conditions, remains functional.
- The applicant should provide confirmation that the existing tailings facility and liner are appropriate for the additional storage and operations which will be conducted at the site, and that their design specifications will not be exceeded by expanded operations.
- The applicant should confirm the expected operational life of the existing tailings facility and liner.
- It is estimated that there is at least seven years' worth of material on site, available for processing. The applicant should clarify whether there is intent to haul material to the site from other locations once the onsite material processing is completed.
- The applicant describes a number of historical mine operations in the immediate area which could extend the life of the milling operation. Boulder Watershed Collective may support the removal of these waste rock piles if the areas were restored to acceptable standards after excavation. This is especially important in riparian areas where many of the waste rock piles exist.
- If future operations include processing of piles from other locations in the watershed applicant should assess impacts to wildlife due to dispersed operations to gather process materials at various historic mine dumps.
- If sustained operations include screening of ore outdoors applicant should consider air quality and potential dispersion of waste rock dust to the nearby town of Gold Hill and immediate neighbors to the south of the mill site.
- The applicant should provide additional information regarding the handling of toxic materials used in its milling operations, and how these materials will be handled and disposed of to prevent pollution, in accordance with See Rule 6.3.3(1)(k).
- Given the setting of the proposed operations, their potential to impact the surrounding environment and the relatively high public interest in the application, DRMS should consider setting the matter for public hearing.

Thank you for considering these comments as you review the application for permit conversion.

Sincerely,

Maya MacHamer