



## **Submission on a publicly notified application concerning a resource consent under section 96, Resource Management Act 1991**

To: Central Otago District Council

Name of submitter: **Ministry of Education ('the Ministry')**

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### **The specific parts of the application that the Ministry of Education's submission relates to are:**

The potential contamination and drawdown effects on the drinking water supply at Millers Flat School, and construction and operational effects associated with dust and traffic safety. The Ministry seeks to ensure that any potential impacts on the school resulting from this resource consent application are appropriately addressed to ensure the safety of school staff and students.

### **Background:**

The Ministry of Education ("the Ministry") is the Government's lead advisor on the New Zealand education system, shaping the direction for education agencies and providers and contributing to the Government's goals for education. The Ministry assesses population changes, school roll fluctuations and other trends and challenges impacting on education provision at all levels of the education network to identify changing needs within the network so the Ministry can respond effectively.

The Ministry has responsibility for all education property owned by the Crown. This involves managing the existing property portfolio, upgrading and improving the portfolio, purchasing and constructing new property to meet increased demand, identifying and disposing of surplus State school sector property and managing teacher and caretaker housing. The Ministry is therefore a considerable stakeholder in terms of activities that may impact educational facilities and assets in the Southland Region.

The Ministry made a submission on the previous Hawkeswood Mining Limited resource consent application at the subject address. The prior application (RC220350) was made in 2022 and notified in 2023. Subsequent to the notification period, the application was placed on hold and has since been relodged and amended to include an altered proposal and additional activities, including retrospective earthworks.

### **The Ministry of Education's Submission:**

Hawkeswood Mining Limited have sought land use consent for an alluvial gold mining operation and associated activities at a rural site in Millers Flat approximately 1km southeast of Miller Flat School. The total proposed volume of earthworks is estimated to be approximately 12 million cubic metres, with the gold bearing wash resulting in approximately 2.3 million cubic metres, and the remainder is overburden.

Upon review of the application and supporting documents, the Ministry wish to highlight the following matters:

### Potential water contamination

It is known that gold deposits in south Otago may contain high concentrations of heavy metals (arsenic, cadmium, copper, lead, zinc, iron, mercury, nickel, chromium and manganese) and these can be mobilised by Acid Mine Drainage (AMD) when stockpiles are exposed to rain.

The Ministry is concerned that there is the potential for surface and groundwater contamination from the stockpiles proposed at goldmine site given its proximity to the school's bore and approximately 40m to the river. Further information regarding the potential effects, and associated mitigation, of heavy metal contamination from AMD is requested to enable the Ministry to make an informed decision. In particular, the applicant should address whether there is any AMD potential from fresh oxygenated rainfall water seeping through freshly stockpiled overburden or tailings materials.

This could be achieved by conducting a geochemical assessment identifying potential acid generating minerals and Toxicity Characteristic Leaching Procedure (TCLP) tests. If AMD potential is identified, the applicant could propose mitigation measures to prevent groundwater and surface water contamination. These matters have not been addressed in the application. Other information to better inform changes in groundwater quality and quantity over time may also be necessary to enable an informed decision to be made on the effects of the proposal on the school.

### Water level and quality monitoring

The Ministry advises that Miller Flat School is on bore water which provides a backup for the school's drinking water supply for the staff and students. In addition to the school bore (G44/0028), there are a number of other wells in Millers Flat (within 2.5km from the site) used for several purposes, including but not limited to, domestic supply, irrigation and stock water.

In our opinion, the application package should list all these wells and establish a baseline for both water levels and water quality prior to commencing its operations that future monitoring can be assessed against. Our technical advisers indicate that there is potential for groundwater level drop (drawdown) at the school bore below the pump intake. Further information on the potential effects of drawdown should be provided by the applicant to rule out any potential or actual adverse effects.

Based on technical advice received, should consent be granted, upon commencement of the activity, it is requested that a Groundwater Monitoring Programme (GMP) to monitor potential water level and water quality changes at these bores be established. The parameters to be monitored should include standard water quality parameters as well as heavy metals (arsenic, cadmium, copper, lead, zinc, iron, mercury, and manganese).

Other parameters of importance include pH, total suspended solids, total dissolved solids, alkalinity, and acidity. The monitoring programme should also include mine piezometers and new piezometers drilled at set distances (100m, 300m, 500m) from the mine border towards Millers Flat town.

### Dust Suppression

The Ministry recognises the potential of dust effects on Millers Flat School and its students as a result of the establishment and operation of an alluvial goldmining activity, and the ultimate rehabilitation of the subject site. As such, the Ministry requests clarity on the methods of dust suppression proposed, noting the application states the use of bunds and water carts as dust suppression methods however there is no detail of the proposed Dust Management Plan within the application.

### Operational and Construction Phase Traffic Effects

Due to the scale and location of the proposed mine it is not fanciful to consider that high heavy vehicle movements will likely be required over the duration of the 10-year mining period, potentially resulting in traffic safety and traffic noise effects. The Ministry consider there is the potential for the proposed activity to adversely affect the rangatahi and kaiako at Millers Flat School in this regard and request a peer review of the Abley Transport report be undertaken by Council's experts to ascertain what the level of operational and construction phase traffic will be as a result of the proposal.

**Engagement with Millers Flat School:**

The Ministry engaged with Millers Flat School in 2023 for the similar application (RC220350) was made in 2022. At this time, there had been no effort to contact the school. The school has raised concern regarding air quality, water quality and traffic volumes. The Ministry request the applicant engage with the school to discuss concerns they may have.

**The Ministry of Education seeks the following decision from the consent authority:**

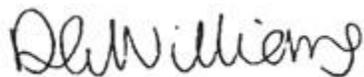
- Before a decision is made, further information should be made available including, but not limited to, the effects of drawdown on neighbouring bores and the potential impact of heavy metals on drinking water supplies in the vicinity.
- It is requested that the applicant carries out an assessment of potential AMD issues arising from site activities. In particular, the applicant should address whether there is any AMD potential from fresh oxygenated rainfall water seeping through freshly stockpiled overburden or tailings materials.
- The applicant provides further information that lists all wells within the vicinity of the proposed mine and establish a baseline for both water levels and water quality prior to commencing its operations. Upon commencement, the applicant should establish a Groundwater Monitoring Programme (GMP) to monitor potential water level and water quality changes at these bores.
- The Ministry requests that suitable conditions are included to monitor the groundwater levels and groundwater quality changes including, but not limited to, reporting and responses in the event that changes exceed prescribed threshold levels.
- The Ministry requests that the applicant engage with Millers Flat School and the Ministry prior to the commencement of the mining operation.

**The Ministry wishes to be heard in support of their submission.**

**The Ministry contact person for asset planning is Walter Lettink. Contact details for Walter are:**

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**Date: 16/02/2024**