

EES Supplementary Response

Fingerboards.IAC@delwp.vic.gov.au by midday Friday 26 March 2021. In the email subject line put your submission number and Supplementary Submission–Centrifuges.

Proposed Fingerboards mineral sands mine project at Glenaladale

*Dear Inquiry and Advisory Committee
members,*

I am writing this submission further to my original response about the EES for the proposed Fingerboards mineral sands mine project. I strongly oppose the mine for the reasons outlined in my submission.

Having reviewed the Supplementary materials provided by Kalbar regarding Centrifuges instead of Tailing Pits it is still clear that the EES has not met the scoping requirements as specified by the Victorian Government and therefore Kalbar Resources have failed the EES process and ought to be declined for this project.

My main concerns with the centrifuge proposal of this already comedically flawed plan are below:

Electricity Consumption

Electricity use will increase by 5,000 kVA with the proposal of centrifuges. Our existing infrastructure will not support this. How do we know this won't result in blackouts for the area during a power surge. What cost will this add to existing electricity users in businesses, homes, healthcare etc. No impact assessment has been made. An obvious oversight.

Water Consumption

Kalbar advised they made a major error in the NEWS about the rate of water recovery from the fine tailings; they would need an additional 2 GL of water for their plan. To address that problem, Kalbar now proposes to use centrifuges instead of a tailings dam. Something they would have had 4 years of planning to consider before putting out the EES, but instead sprung it upon the EES Panel and concerned Community Members during the review process! During this time they also janked together a phony 'model' to test their centrifuge plan. All very last minute, scurrying about with no real intent to take this whole process and those impacted, seriously. Kalbar states they need 6 centrifuges and another 2 in reserve. 3GL of water will be needed for the centrifuge plan.

The option of allowing Kalbar to directly pump 3 gegalitres per year from the Mitchell River as required would put the water supply of a current multimillion dollar vegetable industry under more pressure. In times of water restrictions this whole plan poses serious water security risks. There will be an issue of prioritisation of water allocations, war for water. Global warming is already affecting the rate, flow and health of the Mitchell River. The flow on effect of allowing Kalbar control over this water would then threaten the ongoing livelihood of the Lindenow Valley vegetable producers, supporting transport, processing, and associated retails industries which employ a vast amount of our population. Much more **direct and indirect jobs** would be created if the water the mine requires was redirected to growing vegetables.

Since the COVID-19 pandemic we have seen a HUGE influx of people leaving metropolitan areas to live in East Gippsland. Because of the community safety, clean green image etc. This population influx brings additional stretch on resources for food, clean water, power, accommodation etc. Investing in farming would serve the population boom and future of these residents much better than mining ever will.

Kalbar has proposed a number of water options including damming or pumping from the Mitchell river. Either option would restrict water flow to current downstream users and would be a source of contaminants and pollution entering the Mitchell River and Gippsland Lakes. Leaching from flocculants and wastewater entering the Mitchell River pose risks of contaminating the river and the vegetable crops that are irrigated from that river water.

Potential for Pollution and Environmental Impact

Mining is a source of significant water pollution and groundwater contamination.

Centrifuges require a huge increase in the use of flocculants. The role of the centrifuges is to basically spin as much water out of the fine tailings as possible so that a “cake” or solid lump is formed. Wastewater that has been “spun” out of the tailings will be reused. That water will become more concentrated with contaminants over time. This is deposited into the mine voids.

Therefore contaminated matter still potentially ends up in the void and previously buried materials become exposed to the elements with unknown effect. A massive increase in flocculant use will be required (370g/tonne of tailings). The impact on the environment hasn't been assessed, nor the potential for leaching into waterways. Expert evidence raises concerns about their use given the huge amount and the lack of scientific evidence about their performance and use on this scale. They are also toxic to fish.

The proposed open cut mine site at the Fingerboards is on the boundary of both the Mitchell River and Perry River catchments. The hills and valleys of Glenaladale run water directly into the river. There is therefore a risk of contamination of both these waterways. Further, mining at the depth stated by Kalbar of 60 meters also puts the underground aquifers at risk through pollution, including carcinogenic heavy metals. Kalbar's own studies indicate the levels in this ore are at catastrophically toxic levels for residential or industrial exposure. Deceptively, they have not released the full report to the public on the findings. Most stock and domestic bores in the Fingerboards area draw their water from this depth. This is a risk that is unacceptable to primary producers who are dependent on quality water for the health of their stock. Airborne contaminated dust also poses a significant risk as the stock inhales and ingest it. It is also known that silica, monazite, thorium and vanadium are present in these sands at high levels, all of which are toxic to humans and animals.

Residents of Glenaladale, Fernbank and Stockdale also rely on bore or tank water for their freshwater supply, it is highly likely that a mine in the area would pollute these water supplies through contaminated dust and groundwater supply - negatively impacting on health and future residents. Conveniently in their maps in the EES Kalbar do not clearly show just how close this network of significant water systems is within the mining footprint. They routinely fade out waterways, rivers and houses on their planning maps to seduce potential investors!

The Technical Reference Group (TRG) did not assess the environmental risks from the use of centrifuges, so the cumulative impact of their use has not been assessed, nor risk mitigation strategies presented.

Lack of insight - Costs to Build, Repair (Dismantle) and Dangers in Use

Centrifuges have never been used in mineral sands mining before so it has not been established that they would be a technically or financially viable option. This is pure speculation by Kalbar and another example of how they are willing to toy with the futures of our community and industry.

Accidents have occurred overseas in the use of centrifuges and as centrifuges are untested in mineral sands mining, the risk of an accident causing injury or death to workers is high. Information about the potential hazards, likelihood of harm as a result of these hazards, and how harm might manifest as a result of using centrifuges is missing in the EES documents.

Centrifuges are hugely expensive to construct and dismantle safely. Who bears the cost? Using centrifuges doubles the operating costs associated with treatment of fine tailings from \$1.50-\$2.00 per tonne, to \$3.50 - \$4.00/tonne. No cost benefit has been done to show that the product would be worth the processing cost.

The technical reports don't include additional or revised information of the risks and mitigation strategies for centrifuged tailings, soils, overburden or coarse tailings as part of rehabilitation and closure planning. If the Project is abandoned rehabilitation won't happen.

Dust

Dust from this mine cannot be prevented from blowing across the Lindenow Flats which is a major producer of fresh vegetables. Kalbar needs to be testing for all heavy minerals and metals and making these results public, not just those they deem worthy of testing and sharing. Residents and community members deserve to know what is proposed to be up-earthed and exposed. Stockpiling of the processed tailings poses human health risks if it becomes dry and airborne.

Noise

Hundreds of people live within a few kilometres of the Project boundary. The full impact of noise has not been stated. There are human health risks because of night-time operations. The full specifications from the manufacturer of the centrifuges have not been provided by Kalbar so it is not clear what the full impact of noise will be from operating 6 centrifuges. Kalbar has stated to many residents that it would be untenable to live near the mine due to the noise, what are these residents supposed to do? Live with low quality of life? It is forcing people to vacate property and livelihoods. The full noise impacts have not been disclosed as there was no product in the centrifuge and the outlets were sealed so the noise test results do not reflect the expected real noise levels. Noise impacts

humans, stock and wildlife in the vicinity of this mine.

Community Discontent

Overall this proposal is yet another subversive tactic by Kalbar to confuse and frustrate locals with plans after submissions have been made. It has surprised me that the IAC is just taking Kalbar's 'word for it' that the Centrifuge option is now the plan, instead of tailings dams. Surely this process had highlighted to the panel that Kalbar will change their ideas at a whim and with staggering substandard planning to do so. If this mine goes ahead, who is to say that Kalbar (or whoever takes the mining project) will not just submit a works plan and revert the centrifuge idea to the tailings dam idea and just go ahead without needing formal review? In 2018, Kalbar had explored the use of centrifuges according to an expert report using a sample of slimes from the Fingerboards mine site. If centrifuges were considered the most viable option for tailings waste management, why wasn't the centrifuge option included in the exhibited EES?

Our community does not deserve to suffer any more because of this farcical endeavour. The string of changes that Kalbar introduced are because of their ERRORS in the original submission that were plain to see. For Kalbar to make major (proposed) planning changes when the community had already submitted their response just continues to show their blatant contempt for our residents, farmers and concerned parties.

To have these changes thrown in at the last minute is just another kick in the guts for those of us who are affected. It is costing astronomical amounts of time, money and emotion to understand, process, digest and battle with this proposal.

It is a huge waste of our time as a family worrying about a project proposal that should never have got this far because it is simply unwanted and dangerous for our area. I firmly believe that there are corrupt elements which have led to this proposal going this far. Please think about what our community and future really needs. Farming, cohesive communities and sustainability for all is our future,

Sincerely,

Yvette Waller

26/03/2021