## **Submission Cover Sheet**

## Fingerboards Mineral Sands Project Inquiry and Advisory

### **Committee - EES**

		Request to be heard?:	No - but please email me a copy of the Timetable and any Directions
Full Name:	Gary Kenney		
Organisation:			
Affected property:			
Attachment 1:	EES_submissior	ı.p	
Attachment 2:			
Attachment 3:			
Comments:	Please find atta	ched pdf	







I have been working in the vegetable production industry on the Mitchell flats near Lindenow for 10 years. Being in my late 50s the prospect of a mine being starting very close to those farmlands and its potential to negatively affect my employment future is very disconcerting. I have therefore had a read of the relevant material in the EES and wish to draw your attention to some of the issues that I believe are inadequately addressed and leaves me with no option but to **oppose the opening of the mine**. The areas that I see as of greatest concern to horticulture revolve around the matters of water and wind. Predominantly the issues of dust, water consumption, the potential effect on ground water beneath the mine area, and the way weather extremes increasingly affect these issues.

### WATER

### Potential Surface Water contamination from Ground Water

A potential issue I haven't seen addressed (perhaps I missed it, so much to read and so little time to read it all) is the effect on the aquifer itself by the mining process.

The EES says than the mining operation will be between 19m and 50m deep but that dewatering will not be necessary as it will all occur above the aquifer. My concern is based upon the proximity of the mining to the aquifer. How much distance is to be kept between the two? I'm well aware of the ability of heavy machinery to create compaction of soils so at what point is it necessary to stop mining to protect the aquifer? If we have a sand or gravel interface between the 2 then doesn't the possibility of rainwater leaching increase markedly with a close proximity?

# I have been told by an engineer that once an aquifer has been interfered with the effect is permanent.

The following image shows the estimated depth to the ground water at the proposed mine site. This shows areas on the lower levels (gullies) of the site where the water table is very shallow (5-10m) and that 19m appears to be inadequate for the mine to avoid interaction with it.

It is also worth noting that a water supply bore ID 85899, sunk in 1972 is only down 3.04m. Thus bore is located east of the Glenaladale road and a short distance north east of the mine site.



According to Visualising Victoria's Groundwater there is interaction between ground water and surface water only a short distance to the east of the mine site.



https://www.vvg.org.au/vvg\_map.php

This interaction is also acknowledged in the EES. (Ground water Surface water impact p.47)

Surely this as a potential source of contamination to the Mitchell river, irrigators and ultimately the Ramsar listed wetlands of the Gippsland Lakes.

### Water Availability

This year has finally saw the end of the driest 3 year period on record for this area. This is after the extended dry period from 2000 to 2010. The EES recognised the role of our changing climate but failed to address the fact that the information they provided was averages **and it is the extreme events that pose the greatest threat**.

This is what they say,

The lowlands of East Gippsland are within a temperate climate zone, and experience warm summers and cooler winters. Climate change predictions for the Gippsland region forecast an increase in daily storm rainfall totals by 6.5%, reduced annual rainfall totals by 2.3%, and increase evaporation rates by 4.7% at year 2040, corresponding with the expected climate conditions at the end of the mine life.

Climate change predictions and their effect on potential project impacts have been considered by the various specialist studies referenced throughout this report.

Ground and surface water impacts assessment p.iii, iv

Not only is my concern about the availability of water for irrigation but also for dust suppression at the mine. Think about it, the greatest demand for water is when things are the driest and it is those times when dust is the greatest issue. The demand on the resource goes up the most when it is not available. It is this scenario that I see as the biggest threat to the horticultural industry in the presence of this proposed mine. Yes there could be a few good years and then, as is happening more frequently, we get a very dry patch and things will turn ugly quickly. It is not a matter of if but when and if the past 20 years are an indication we will not have long to wait.

It is not only the horticultural industry relying on the Mitchell flow but the water supply for all the towns from Lindenow to Lakes Entrance.

### Dust

I believe the EIS fails to adequately address the dust problem because it fails to acknowledge the very windy nature of the location. This can be easily illustrated by looking at the graphics provided by the Bureau of Meteorology. It is well known by locals that this region is subject to substantial wind events especially associated with the change of seasons. Not only does the almost weekly frontal system bring its windy burst but the change of seasons can deliver multiple days of strong winds, gales and occasionally worse. (see attached wind rose graphic from the Bureau of Meteorology)



I have noted also that the proposed location for the removed topsoil is close to the tops of ridgelines. ie near the current Bairnsdale-Dargo road. This will expose it to wind from all directions but especially the prevailing westerlies. Having a topsoil deposit on the western side of the Bairnsdale-Dargo road also leaves the road vulnerable to potential (and very likely) dust impact. If you want to mitigate dust generation then this needs reconsideration.

### Employment

From an employment perspective I believe the mine poses an unacceptable risk. Please note the following points from the EES regarding this:

- The mine poses a moderate risk of having a negative impact on the reputation of the horticultural industry in the Mitchell river valley. (horticultural impact p.70)
- The mine will employ an estimated 200 people. (mentioned repeatedly throughout the EES)
- The horticultural industry employs an estimated 1500 people.
- The mine would last up to 20 years.
- The horticultural industry has already existed for more than 40 years, is expanding, and is enduring.

200 extra jobs are a nice incentive but there only needs to be an event that sees the reputation of the horticultural industry undermined before its clients and a 15% downturn soon sees 200 jobs gone.

#### Conclusion

I cannot see the presence of this proposed mine being compatible with the values of the locals or the primary industry that employs so many. In all honesty I wish I could write otherwise but the location and the matters of water and dust are not easily mitigated by discussion groups and special events. The behaviour of Kalbar in targeting the oppositions local advertising and their attempts to buy social licence by financial incentives to local sports groups has highlighted the suspicion people have of this company. I would hope that, in the event of the mine proceeding, much of the monitoring be done by independent operators selected by government and the government actually place some substantial protections (and enforce them) for the existing businesses that *should* be able to exist well beyond this mine, and for the environment.