

Submission Cover Sheet

Fingerboards Mineral Sands Project Inquiry and Advisory
Committee - EES

673

Request to be heard?: No - but please email me a copy of the
Timetable and any Directions

Full Name: Shaun Flynn

Organisation:

Affected property:

Attachment 1: A_Case_Against_K

Attachment 2:

Attachment 3:

Comments: Please see attached

A Case Against Kalbar Operations Pty Ltd and
Associates in East Gippsland:

Where Will This Leave Melbourne's Already
Overburdened and Fragmented Foodbowl?

An Economic &
Environmental Critique.

Shaun Flynn

Submitted: October 2020

Dear Inquiry and Advisory Committee members,

I am writing this submission in response to the EES for the Fingerboards mineral sands mine project in Glenaladale. I am strongly opposed to the mining proposal in this location on environmental and economic grounds, for reasons I will detail below. I am not a local but I did grow up in a similar sized community, that has so far successfully fought off numerous economically and environmentally disastrous industrial proposals over the years. Many have been beyond short sighted, pure greed coupled with a lack of government oversight.

Kalbar Operations Pty Ltd, a newly created company with **no** experience operating a mine, is proposing a massive open-cut mineral sands mine at the Fingerboards near Glenaladale. The surrounding area already supports existing successful and sustainable industries like the Lindenow Flats vegetable growing industry, dryland farming including sheep (fine wool) and beef cattle, dairy products and the tourism industry. With any impacts on the local rivers and the Gippsland Lakes likely to affect these industries. It is this low key atmosphere situated amongst an already sustainable and successful agriculture industry that residents highly value. Glenaladale is the gateway to the Mitchell River National Park and the iconic town of Dargo in the High Plains, it is the last town people will see before they enter this pristine area. There are also concerns that the significant amount of jobs in tourism, parks, recreation, and agriculture are at risk from potential contamination of the river, land and ultimately crops. If there is runoff from the mine site there are risks of the river being negatively affected, impacting on the foodbowl, fishing, agriculture, recreation, the health and wellbeing of the local population.

Further concerns are that these jobs already present in agriculture are more than what the mine can offer. Jobs lost by the contamination of the food, the restaurants, fast food outlets and markets that rely on the areas produce will then follow. This hulking mine site proposed will compromise all of this. Farming and mining cannot coexist in this particular setting (1) (2). The locals are not opposed to mining, just mining in inappropriate locations, and this is about as inappropriate as it gets. There is no social licence for this incredibly destructive mine that will take massive amounts of water, compromising the already present industries. It is completely unnecessary, given there are many more less destructive and more viable deposits in Victoria and across Australia (3).

The value of the local area - Agriculturally

The Lindenow flats, a high-value agriculture production region situated on the banks of the Heritage listed Mitchell River, is as close as 500 metres downstream from the edge of the proposed mine's boundary. With the approximate 13 square kilometer area of land being mined, many trees, vegetation and habitat will be removed including over 500 large mature trees. Numerous flora and fauna species are threatened. (outlined below). The EES technical studies have not comprehensively surveyed the area to understand the full flow-on effects and ramifications of the mining site proposal and what is at risk. This could mean more loss of ecology than reported in the EES. The landscape of the area will never be replaced; offsets can't address this loss. Prime agricultural land cannot simply be 'put back together' as Kalbar have claimed, you can't mix different soil types and layering back together and expect for the land to return to normal. It is not an appropriate response to simply replant trees in a neighbouring area. How will Kalbar adequately compensate for any lost vegetation either directly or indirectly. You cannot just replant a tree for a tree, or even a dozen trees for one keystone tree. There's more finesse to ecological relationships than that. We know ecosystems and trees are much more complicated than that. Kalbar have not adequately planned for any loss of vegetation, and other amenity. They have no social license to be here.

The \$155 million per year Mitchell River Valley vegetable industry that employs up to 2,000 people is as close as 500m downwind from the mine. Will any farmers be able to sell their crops, meat or livestock if their produce is contaminated and they are known to be in a toxic mining area? Will farmers be adequately compensated? The answer is most likely to be a no because we understand that the community values good quality produce that is contaminant free. We know from past instances that it is always a difficult process for farmers to receive compensation. This will jeopardize Gippsland's image of clean green products, tourism and services (4). These food bowl areas not only supply Melbourne, but the state of Victoria, some of the produce is exported, supplying interstate and overseas networks. Kalbar's proposal risks the integrity and productivity of Melbourne's food supply which is already overburdened from poorly planned developments, overdevelopment and climate change as noted in recent reports (5). Where does this leave Melbourne's already highly strained and fragmented food bowl? Melbourne's Food bowl is under pressure from an ever expanding urban growth boundary, and the State Planning Policy Framework currently lacks effective measures to prevent further loss of productive agricultural land. This is simply not good enough and Kalbars project feeds right into this policy mess. There needs to be oversight and responsibility taken by all parties; the project proponents, developers, independent assessors, councils, state and federal governments, for our population is only set to grow and demand on food only set to increase (6) (7).

Environmentally

The project will dramatically affect the surrounding environment. The community is concerned about the serious and irreversible environmental damage that will ultimately affect the viability of the already present industries. The proposed Fingerboards mine will have a number of negative impacts on the immediate, surrounding and downstream environments. These include but are not limited to:

- altering the flows of the Mitchell River through diverting water from dammed gullies back into the mine operations area and destroying the capacity of the Fingerboards area to act as a gravel groundwater recharge area.
- siltation of the river systems when the inevitable floods wash the exposed sands downhill, with further negative impacts on aquatic biodiversity through this siltation process
- leaching of flocculants, heavy metals and other contaminants into the Mitchell and Perry River systems, and changes to groundwater levels through mounding in and around the project area, with decreased groundwater levels projected for many kilometres further afield.

The company has already stated they will cut down a significant amount of mature trees that currently provide shelter for livestock and native animals, and are an important support for biodiversity in the area. These relatively few remaining trees are of critical importance as habitat, they're important for the wellbeing of soil biology and ultimately aid in productivity of the land. These trees are the final stop before migratory birds arrive at the globally significant Gippsland Lakes RAMSAR site. Our RAMSAR listed wetlands have to be protected at all costs, given the myriad of ways it contributes to us economically, recreationally, environmentally and socially. Our environment has deteriorated to such a state that it is entirely necessary to protect all of our remaining ecosystems and habitats. Overall, since European settlement Australia has lost nearly 40% of its forests, and much of the remaining native vegetation has become highly fragmented, with Victoria having lost around 66% of its vegetation (8). Kalbar's offset requirements are inadequate and do nothing to rectify the damage done to the local environment which will have real tangible effects on the locals economy and work for generations to come - given there are real challenges and complexities in rehabilitating land back to its productive past (and has been done so rarely in the past).

In addition, contaminated dust from mining can smother vegetation, causing changes in photosynthesis and ultimately vegetation viability and productivity. We know from various studies in the land regeneration and agroforestry space that vegetation and ecosystems neighbouring farmland are a major contributor to the wellbeing of the soil and crops.

A changed environment - the whole surrounding environment will be altered affecting the utility of the land for future generations, and people's livelihoods forever.

- The operations site is 1,675 hectares of which 1,100 hectares (11 square kilometres) is to be mined. The area being mined will be larger than the Hazelwood Mine, with no guarantee that rehabilitation will occur.
- Significant remnant vegetation will be removed including over 500 mature shade and habitat trees
- Destruction of EPBC (Federally listed) eco systems (9)
- Destruction of crucial habitat for rare and endangered species
- Destruction of creeks and waterways
- Contamination of streams
- Adverse effects of the RAMSAR listed wetlands, Gippsland Lakes and heritage listed Mitchell River and Perry River systems
- Aesthetic destruction to the gateway to the Alpine and Mitchell River National Parks
- This will be an open-cut mine dug to a depth of up to 45m forever altering soil biology and productivity
- 200,000 metric tons of greenhouse gas emissions will be produced from the excavation and processing of this mine. What is the real plan to mitigate this? The rest of the world is getting on with climate change action, where does this leave Victoria and Australia's obligations?
- Dust contamination of pastures, crops, domestic areas, and stock water is inevitable within several kilometres of any open-cut mine. We can't just get up and move our foodbowl to another area.
- Bioaccumulation of heavy metals in soils, pastures, crops and stock is a common problem with persistent dust contamination. Kalbar acknowledges it can't eliminate all of the dust - where does this leave us, do we now just act as business as usual?
- Impacts from tunnel erosion, acid sulphate soils, sedimentation, landform instability – in view of previous studies and trials, success is still not evident after 10 years following rehabilitation.

There will be an increased use of chemicals within the environment such as:

- Flocculants are used to settle clay but are toxic to aquatic and bird life, and persist in the environment
- They will be used in high doses and will leach through the tailings dam to Perry River system

Impact on flora and fauna species within the area including

- 9 rare or threatened flora species
- 10 species listed as rare or poorly known on the Advisory List of Rare or Threatened Plant in Victoria (10)
- 2 national listed species (dwarf kerrawang, swamp everlasting)
- 2 state listed species (yellow wood, prostrate cone-bush)
- 42 rare or threatened terrestrial fauna species
- 11 native 2 exotic fish species- including Australian grayling, Flinders pygmy perch
- freshwater turtle

- platypus

Many of the local farming families have preserved large areas of native habitat on their properties for the last 150 years. These areas, including many ancient trees, will be removed, having further flow on effects including loss of shelter and shade for grazing animals, as well as erosion. This will further play a role in the degradation of soil quality given vegetation's role and impact on nutrient recycling. Some of these areas adjoin bushland that links to the Providence Ponds Nature Reserve, one of only three sites in Victoria for the New Holland Mouse (11)

This is significant because we know that Australia's environmental record is abysmal. We have the first globally recognised mammal to become extinct from climate change (12), and Australia's overall biodiversity is already under major threat (13). It is even proposed that we're living through the planet's sixth mass extinction event, referred to as the Holocene extinction, or the Anthropocene extinction (14). Australia's animal die off continues with bats in heatwaves, insects and birds (15). Numerous plants and animals call the wider Gippsland area home. Kalbar's EES fails to outline precisely how the project will impact the terrestrial ecology and biodiversity, which poses unacceptable risks to endangered and vulnerable flora and fauna. Adequate surveys have not been undertaken to determine what other species would be impacted.

RAMSAR Wetlands

- These wetlands are bird life refuges and migratory routes for many species of birds, they would be devastated by dust and increased sediment flows into rivers. This wetlands ecological importance cannot be understated (16).
- How will the proponent manage the project area soils regarding the potential adverse effects on hydrology and water quality, permeable gravel beds within the recharge areas?
- Wetlands have been shown to be critical in carbon sequestration and are so important to a stable climate now that any compromise or damage will have implications for the global climate (17) (18).
- We already see major threats to wetlands across the globe - with Westernport Bay the location of a significant amount of proposals over the years. Mid 2020 saw a major oil spill in wetlands on Mauritius, how will Kalbar manage increased shipping and transport around Gippsland? (19).

Groundwater

- We have little confidence that the bores Kalbar claims they will be monitoring for flow and water quality will in fact be the same aquifers that are being used by other farm water users. There is a question of transparency here. We know Kalbar will likely use any trick to mislead the public on their duties. We see time and time again the proponents failings in their duties to protect the locals.
- Mounding and migration of groundwater from the backfilled tailings material along the mine path during operations will include chemicals, dust suppressants, radionuclides, sedimentation – how can they prevent these from entering the water table, creeks, streams, rivers, farmers dams, household water supplies?

Changed ecology of the rivers

- If the mine is not stabilised and a large volume of rain falls - which is a regular occurrence, the sediment will impact both the Mitchell River and the Perry River systems. The Mitchell River is a hatchery for Black Bream and Graylings, it flows through the world-renowned Silt Jetties into the Gippsland Lakes (20). We cannot afford anything to compromise this recreational and commercial fishery and this outstanding tourist destination.
- The area proposed to be mined is 80m uphill of the Mitchell River and contain extremely fragile soils that readily dissolve in heavy rainfall events. They will fill the river with sediment, destroying the aquatic environment in both the river and the Gippsland Lakes. The Perry River's unique yet sensitive Chain of Ponds is also at risk (21).

Project Shortfalls From a Planning Perspective

A further example of how poorly this has been planned is that the East Gippsland Shire Council already released a plan called the 'Lindenow & District Community Plan', which did not foresee a mine in the area (22). The mining proponents and State and Federal Governments need to recognise the pre-existing residential and agricultural land use. Mining and agriculture cannot coexist in this area.

- The vegetable industry in the Lindenow Valley is only 500m downwind from the mine with most of the vegetables grown above ground, so dust from the mine is a high risk. People obviously don't want to eat contaminated vegetables, this risks the industry being shut down which could result in big job and financial losses for our region.
- Water to irrigate the crops comes from the Mitchell River. The mine is on the other side of the river on top of a plateau. There are risks of the river being contaminated, impacting on the crops, fishing, agriculture, the health of the rivers and the internationally recognised RAMSAR Gippsland Lakes and wetlands. Given the interconnected nature of our ecological systems, what happens here will affect other areas around the globe. In this instance, a compromise of the wetlands could affect our already precariously placed climate given its astonishing ability to contain large amounts of carbon and support birdlife.
- Located on high ground above both the Perry and Mitchell Rivers there is a stated risk of leaching from the dam. If there is a 1 in 100-year flood, tailings waste & flocculants could be released into the creeks and rivers, harming aquatic life and aquifers. The risks are considerable and foreseeable given the many examples of dam failures across the globe, remember the Benambra disaster, or the BHP Billiton dam collapse in Brazil 2015? We know the risk of failure can't be low, we've seen the risks around the world from mining disasters (23) (24). There are no details in the EES for the dam's construction so how can the

risk of failure be low? Kalbar fail to adequately address this scenario in their EES.

- Over 3 billion litres of water (3GL) is required by the mine annually for up to 15 years (the maximum life of the mine) for processing and to control dust. This shows how big a problem dust is. What will the impact of this be on bores, aquifers and the Mitchell River?
- The Woodglen Reservoir where domestic and commercial water is stored for the whole Shire is 3.5kms downwind from the mine, supplying water to about 29,000 homes and 3,500 commercial premises. What will the contamination risks be? This raises potential contamination risks of Bairnsdale's drinking water, the Latrobe Valley aquifer and those on tank water living near the mine.

The East Gippsland area has been experiencing extended drought conditions. This highlights the critical nature of water as an issue in the region, as the Kalbar mine will require at least 3GL+ of water annually. If this water was redirected to agriculture, it could employ an additional 1,000 people, as opposed to Kalbar's estimate of 200 predicted jobs (134 contractors, 67 employees), of which there is no guarantee any of those employed will be locals. Kalbar will likely bring in their own staff from elsewhere. 3 times more jobs could be created than proposed by the mine, given Gippsland is currently on major water restrictions, allocations have been put in place.

Tailings dam. This is a 'wet' mining process, requiring a substantial amount of water in the processing, which will then need to be stored on site. The tailings dam will cover approximately 60 hectares in size, with 20m high walls lined with clay. It will contain mine tailings waste and flocculants (chemicals used to treat the tailings) which are concerning for their they are harmful to aquatic life. The dam will be located very close to the Perry River catchment that feeds into Lake Wellington (part of the Gippsland Lakes) and Providence Ponds (a unique chain of ponds, one of the last of its type in Victoria). There is a very high risk of leaching and contamination.

Social and Community Impact

It is important to note for context where this sits politically. On July 22, 2019 the Minister for Resources Jaclyn Symes announced the protection of some of the land at risk from this mine. The Andrews Government has exempted almost 4,000 hectares from mining and minerals exploration. According to a government media release, "Minister for Resources Jaclyn Symes announced protection for the Mitchell River floodplain near Glenaladale – a prime irrigated horticultural area producing a wide variety of fresh vegetables including lettuce, cabbage, peas, capsicum and sweet corn. The exempted area – stretching from Glenaladale to Hillside – is highly valued for its produce, with farm gate production estimated at over \$100 million per year, providing up to 2000 permanent and seasonal jobs.

Geological studies show low potential for minerals development in the floodplain area, which makes mining in the area less likely to be commercially viable compared to the highly-productive horticulture businesses in that area" (25) (26). Whilst the locals acknowledge this concession, it is just one win in a much larger campaign. There needs

to be more done to protect this rich area, this major contributor to the states food supply. Food bowls can't simply be moved and transported, the soil quality, climate and topography is already present here. We also acknowledge former deputy Prime Minister at the time Michael McCormack who reiterated the areas struggles with bushfires, droughts and floods, and the areas massive contribution to the economy and east coasts food supply (27).

Public health - dust / silicosis, asthma, radioactive material

The mining proponent Kalbar Operations Pty Ltd has acknowledged there are radioactive substances being mined including rare-earths. Below ground level and undisturbed these substances do not pose a health risk. It is when they are excavated, processed and transported that dust is generated, dispersing these materials into the environment; this poses a health risk, particularly as the mine is located where people live, work and children go to school. These dust emissions will come from soil stripping, stockpiling, ore removal, processing, transportation of ore and wind erosion. The mine site is on a plateau that catches a lot of wind. Contaminated dust will travel for many kilometres contaminating anything in its path. Radioactive and highly toxic substances are going to be mined. Kalbar has not released effective data about the content or hazard rating of the ore or of the concentrate they intend to dig up. Heavy metals experts say it will contain arsenic, lead, radioactive thorium, vanadium, chromium and zinc. Titanium dust is a known carcinogen when inhaled. The world's best practice Californian EPA standards have a maximum acceptable level of zero for Vanadium dust (28). Silica dust is a significant health risk when inhaled, and is labelled a Category 1 carcinogen (29).

Locally, tank water is a source of drinking water for human and animal consumption, with the real risk of contamination. A prevailing state and potentially nationwide health disaster looms given radioactive dust on crops can persist in the environment and also has the ability to bioaccumulate.

- Kalbar's geochemistry report lists a number of radioactive and cancer-causing substances that will likely be present in the dust generated. Dust can travel far so this potentially could affect the entire district. The mine is too close to where many families live, farm, work and go to school, it is a highly inappropriate area.

The full analysis of the ore body hasn't been disclosed. We can't fully accept the information in the EES because we don't know what the laboratory was asked to analyse. There are real concerns about transparency throughout this process. We don't know the real dangers to human and animal health. Kalbar are downplaying the risk to human health. We ask the Panel to ensure this information is fully disclosed and closely examined given the nature of the risks. The dust can travel far, so contamination and health risks are real concerns. The advisory panel and Kalbar all have a duty of care not to add to the cancer burden of the community. The mine site is simply too close to where many families live, farm and work. There are long term effects associated with the inhalation of dust such as asthma or silicosis that don't necessarily have immediate symptoms (30) It is irresponsible for the Government to put the community at risk. This dust from the mine does not contain just soil and dirt, but radioactive materials and at least

afew carcinogens. Many households in the area rely on rainwater tanks for domestic use and have *no* other option for their water supply. Solar panels covered in dust will lower efficiency for electricity production further straining locals livelihoods.

Noise

The proposed mine site is situated on an elevated plateau and noise produced from the operations of the mine will carry through the valley, and be more prevalent with variable weather and wind direction conditions. Some of these noise sources will be from traffic to and from the mine site, including various machinery and operations, the diesel generators used in the interim period before mains power becomes connected and available. Noise can be heard up to 15 km away affecting numerous surrounding suburbs. Where these mines have operated in other areas, locals who lived over 7 kilometres away talked about the noise of the processing units voicing serious concerns about their affected livelihoods within their own amenity

The pre-existing residential and agricultural land use needs to be recognised for this area. The large machinery and processing plants associated with the project will emit vibrations constantly. How can you protect people's livelihoods, existing recreational activities, native animals and livestock from this continuous noise and disruption? - that all contribute to the wellbeing of the local community and ultimately viability of their agricultural lands. Noise from a mine operating 24 hours a day 7 days a week will be untenable and very stressful, and Kalbar don't accept that the noise levels will be a problem.

There is a personal toll on a person and their community from a project like this. The human impact - the things that are hard to measure, the change in ambiance, access and amenity at the Fingerboards and surrounding tranquility, loss of vegetation, the increase in industrial sounds, the smell of a chemical leak, the taste of dust, the site of a constant stream of trucks, the site of injured or dead wildlife, the site and thought of polluted rivers. Human health relies on the strength of biodiversity, sometimes just looking at the rolling hills and bushland, and listening to birds is all it takes to have a therapeutic effect. This is a very real phenomenon called *solastalgia*, the distress caused by environmental change. There is high quality, peer reviewed science behind it. The phenomena where people exposed to environmental change experienced negative effects that are exacerbated by a sense of powerlessness or lack of control over the unfolding change process. Everyone feels better after a swim at the beach, or a bushwalk (31). These activities are at risk with Kalbar's proposal.

Tourism

With the heritage listed Mitchell River only 350 metres downwind from the mine, there are potential serious impacts on tourism on the further downstream Ramsar protected Gippsland Lakes area. Tourism is the 3rd largest employer in East Gippsland. The area will see a loss in revenue streams from a downturn in tourism as people won't want to come to the area. A compromising of the wetlands will be a breach of the RAMSAR convention, Australia is also signatory to migratory bird agreements with Japan and China. The Gippsland Lakes provide important feeding, resting and breeding habitat for 86 waterbird species and numerous other migratory species (32). If Kalbar's proposal is approved, these agreements will likely be breached, having ecological ramifications all along the East-Asian-Australasian Flyway for migratory birds and other plantlife and wetlands. What happens in the Gippsland Lakes RAMASAR site will affect other parts of the world. The project also risks opening up the door to further industrialisation in the area and near these sensitive wetlands. The surrounding ecosystem needs to be maintained for economic reasons, with sustainable fishing and tourism, and for local residents' livelihoods. For our clean water, fresh air, carbon storage, maintaining our soil, helping regulate the climate, recycling nutrients and to provide us with food. Culture and the arts; numerous paintings and poems that have vegetation or landscape as a subject. Social nourishment and recreation such as camping, bushwalking (in designated areas). Scientific value, in the pursuit of knowledge, they provide raw materials and resources for medicines. These ecosystems are at the foundation of all civilisation and sustain our economies. We could not live without these ecosystem services.

Cultural Heritage

Traditional Owners have not signed-off on this proposal. The Gunaikurnai Land and Waters Aboriginal Corporation says "the proposed mining operation will disturb and hurt the cultural connection of the Traditional Owners to the land, air and water that is part of the development area". Unknown Aboriginal cultural heritage sites are stated as being highly likely to be present and will be impacted. Given the massive excavation down to 45m, it will be impossible to avoid destruction of artefacts and heritage. This is unacceptable. Their mitigation measures will not avoid the obliteration of cultural heritage.

Transport.

The mine will produce a concentrate which will be shipped overseas to be processed. During periods of peak production, this will involve approximately 80 B-Double trucks on rural roads both day and night. Both the mineral concentrate and flocculants used on the tailings are to be transported by road and they are both expected to be hazardous materials. The route for taking the concentrate to port has not been disclosed. This presents a real hazard to locals not used to such a massive increase in trucks on local roads, as well as a strain on the roads transport infrastructure itself.

Major Flooding Events

The whole surrounding area of Bairnsdale is prone to major flooding events due to its topography (being on a plateau), combined with east coast low weather formations. This has in the past led to numerous flooding emergency situations (33). We now have a situation where bushfires have influenced the severity of floods due to how it can alter the landscape through erosion and indirect effects on water levels and flows (34). This is an area that needs careful consideration of any major earthmoving works. How does Kalbar Mining plan on dealing with these extensive issues if it has no experience in this area?

Bushfires

As we have seen many times over the decades, the bushfire risk across the east part of Australia is severe, which was demonstrated during the Black Summer of 2019/2020. The area surrounding Bairnsdale has been particularly hit hard (35) (36) (37). This project does not adequately address the very real and imminent bushfire concerns that will become more severe as time goes on. The risk of bushfire reaching the mine site and potentially coming into contact with some flammable substances is of high risk. A further risk is the extra 80 B double trucks per day on the road transporting hazardous and flammable substances. As well as if there is an emergency situation, how will all of the trucks be informed of the situation if a fire or flood gets out of control? This is a disaster waiting to happen.

East Gippsland Drought

The East Gippsland region is currently in the midst of a drought and many locals are experiencing hardship (38), with Mitchell River Irrigators have experienced bans on pumping from the river this summer due to drought conditions in (39) (40). The water used by Kalbar is not compatible with sustainable outcomes in the area (41). Kalbar's need for a significant amount of water could lead to earlier and tighter restrictions on users already reliant on water from the Mitchell River, such as farmers, and is likely to impact the health of the Gippsland Lakes from reduced freshwater flow. The approximate 3 gigalitres of water required by the mine is a staggering amount given the drought. This huge amount of water would be better redirected to agricultural production which is currently adversely affected by drought. Many jobs in agriculture and tourism are potentially threatened. If that 3GL of water was released to grow more vegetables in the Lindenow Valley, 3 times more jobs could be created than Kalbar's proposed short-term jobs (42). With further strain on the industry as vegetable prices rise after floods, droughts and heat all affect supplies (43) (44). Can we really trust the processes? We have seen little regard to how our current environmental processes treat small business and farmers in the catastrophe that is the Murray Darling Basin water allocation plan, it is an awful manmade mess.

Dust Storms in East Gippsland

As we have seen, this region has many significant environmental factors to consider. On top of this dust storms are of frequent concern exacerbating already high dust levels in the area (45) (46). Increased dust and aerosols associated with the mining project such as from the new roads being built, and the increase in traffic from in excess of 80 trucks daily, as well as the dust from the actual mining operation could increase asthma development which is already a major burden on our healthcare system (47) (48).

Project Proposal From an Economic Perspective

The economics of the proposed mine just don't stack up. This mine will put our local economy and businesses at risk for the sake of a handful of jobs. While a few people may benefit (at the expense of the majority) the mine threatens existing successful and sustainable industries like the Lindenow Flats vegetable growing industry, dryland farming including sheep and beef cattle, and the tourism industry with the impacts on our rivers and the Gippsland Lakes. Glenaladale is the gateway to the Mitchell River National Park and the iconic town of Dargo in the High Plains. Who pays for the damage to the roads, the loss of the unique character of our area, the loss of biodiversity

when so much of the landscape is razed. And how do you put a price on the impacts on the Mitchell and Perry Rivers, and the Gippsland Lakes?

How will this project provide a net community benefit? What are the benefits to the local community and towns in the immediate, 5, 10 and 20 year time frames?

The Australia Institute shows the economic advantages of mining in rural communities are almost always overrated (49).

Mines, rehabilitation and economics (The Australian Institute)

- Job numbers are seldom what mining companies claim they will be
- Rehabilitation of the land is never completed
- Local towns are no better off when mining comes
- The industries already present tend to suffer quite dramatically

The numerous items of amenity, livelihood, economy at risk include :

- World-class food is grown in the rich fertile soils of the Mitchell River Valley.
- The industry is valued at more than \$150 million annually and employs up to 2,000 people.
- It supplies vegetables to markets, fast food outlets, cafes, restaurants, cruise ships and various businesses along the value-added product chain throughout Australia and overseas.
- The mine is located on a plateau only 500m from the Valley. Dust contamination of soil and vegetables is unavoidable and could destroy the clean green image of the industry (50). If the water the mine is demanding was redirected to growing vegetables more than 3 times the number of long-term sustainable jobs could be created.
- If the mine goes ahead the horticultural industry will have to compete with it for water and there is a high likelihood of loss of existing agriculture related jobs and the community's employment levels.
- This project equates to an elevated level of impact to the region's economy with a high level of risk

Projected local jobs versus existing jobs:

- 134 of Kalbar's 197 projected jobs are for contractors.
- Most mining jobs in Victoria are not well paid – with most operators getting little over \$25 an hour – little more than vegetable pickers currently get
- The proposed mine threatens many more sustainable jobs in local agriculture and tourism than the few by comparison, mostly short-term jobs offered by the mine.
- It is likely that a company will take over Kalbar before mining operations begin (most likely Chinese – Kalbar has already employed a position of “VP” in China). If it is in fact a Chinese Company, experience in

the Pacific region has shown that they will likely bring their own workers so there would be few jobs for locals.

- Could other jobs be created instead? Based on irrigation data, if the 3 billion litres of water Kalbar requires annually was redirected to growing vegetables, 3 times more jobs could be created than Kalbar's proposal. These would be long-term sustainable jobs to grow food, and given the already stressed state much of the east coast food bowls find themselves in, East Gippsland could fill that gap.

Impact on local and regional tourism:

- Tourism contributes \$294 million to East Gippsland's economy, attracting 1.138 million visitors to the region annually. Real and perceived impacts will affect its attractiveness as a tourism destination.
- The Gippsland Lakes is already under threat from decreasing flows and increasing salinity affecting fish stocks and other recreational pursuits - such as swimming, fishing, kayaking and farming. They will not be able to tolerate reduced flows from the Mitchell and existing shallow aquifers, or the threats of siltation from mine run off.
- The Fingerboards Loop, one of the iconic bicycle rides in Gippsland, will no longer be viable due to the dangers of so many B Double trucks using the local roads, and the risk of loss of amenity in other ways not clear in the EES.

Impact on rates, property prices and personal wealth

- Mining companies do not pay rates - straining council resources.
- Residential and farming property values are estimated to decrease by 30% making it difficult to sell properties within the immediate area close to the mine. The properties risk becoming stranded assets.
- Because of the reduced values, banks will lend less against those properties than previously and require higher deposits on loans for people wanting to buy into mining areas.
- Balmoral (in Western Victoria where Iluka had a mineral sand mine) has the third lowest income per capita in Victoria (\$29,573) – Glenaladale currently stands at \$37,198

Mining companies do not pay their way:

Compensation

- Only **directly impacted** landowners will be compensated in accordance with the Mineral Resources (Sustainable Development) Act 1990. This is very hard to prove. How will Kalbar work to ensure people are fairly compensated for their property, health and work?
- Neighbours and others impacted are not compensated for the loss of amenity, impacts on existing businesses, loss of access to water, pollution of air, soils, livestock and domestic water supplies

- How are we going to be compensated for the loss of many hundreds of mature shade trees – not just loss of the visual amenity but the loss of contribution to habitat and biodiversity, and the loss of farms to provide shelter trees for livestock?

Infrastructure costs

- Too often mining companies rely on undisclosed government grants or support for infrastructure upgrades, that money could go to far more sustainable projects and employment
- The true cost of road widening, roundabouts and damage to rural roads, and the highway must be included
- Who is going to pay for the power upgrade needed?
- Are Kalbar expecting government grants for their water storage dams?
- Are they expecting grants for water supply pipes?

Utility requirements will increase emissions

- 3000-kilowatt hours' power supplied from electricity grid (early stages of construction use diesel generators)
- Water requirements 3 to 4 gigalitres annually (minimum and in competition with irrigators - which party is more likely to lose access when water restrictions tighten further?)
- Greenhouse gas emissions – 200,000 tonnes of CO₂ per annum. Planting trees simply is not a good enough mitigating measure given that it takes a considerable amount of time, money and resources for them to be nurtured. They then have to be monitored for the rest of their life, to ensure they are still alive. This is in order to be sure they are still capturing and holding the carbon, otherwise what is the point? How is this project proposing to mitigate its greenhouse gas output?
- Minerals mined are a non-renewable resource using large amounts of fossil fuels

Post Mining Plan - Rehabilitation or the lack of it:

A further concern is in the aftermath of when Kalbar and associates leave, can we really trust the process of them rehabilitating the mine? Can we trust them to hang around and provide adequate support? Despite what Kalbar say, mineral sands miners do not 'rehabilitate as they go'. Iluka Resources said they would rehabilitate the Douglas Mine site (western Victoria) but when prices rose, they were allowed to dig everything up as quickly as possible and not rehabilitate. In 2012 the community was left with a major chasm in the ground that has still not been properly rehabilitated. A further example is the mineral sands mine at Kulwin near Ouyen which closed in 2012 but will be another 13 years before it is rehabilitated. Abandoned mines all over Australia leave the taxpayers to pay the cost of rehabilitation and ongoing environment problems. How can we trust that the process will be transparent, fair and adequately carried out?

The Douglas Mine has set a poor precedent with mine rehabilitation, safety and local recovery (51) (52) (53) (54)

- Impacts from tunnel erosion, acid sulphate soils, sedimentation, landform instability – previous studies and trials show success is still not evident 10 years following rehabilitation
- Tailings dam failure, seepage and overflow
- Contamination of fish habitat and changed aquatic ecosystems
- Continuing impact on availability of surface and ground water
- Potential contamination of soil, water and air
- Destruction and loss of viable agriculture land
- Vegetation loss including large established shade trees
- Too often mining companies are allowed to walk away and leave taxpayers to pay to clean up the mess

Take a look at the Benambra mine site which has so far has cost taxpayers over \$7m trying to prevent highly poisonous waste discharging into the river and surrounding environment (55).

The reality is, full rehabilitation rarely happens. Will progressive rehabilitation actually occur? The risks of no rehabilitation are high if the mine goes into ‘care & maintenance’ with the tailings dam and 19 dams on gullies and creeks being abandoned. Rehabilitation bonds have been shown to be grossly inadequate to cover costs.

Transparency Concerns in Regards to the Nature of Kalbar Pty Ltd.

Further concerns involve the exact nature of who Kalbar is. What are the real implications of them only having existed for a short period of time? Can we guarantee that they are equipped to mine in a responsible way right next to our livelihoods? If not, then what is the actual net benefit to the local community, the state government and the commonwealth then? Why would the project be allowed to proceed given all of these unanswered questions? Who exactly is Kalbar, it seems as though they are a shell company, up to 90% foreign ownership with major stakeholders in the Netherlands and China. It is paramount that this be clarified. Who will ultimately be responsible and what are our legal options if we are to escalate against them, ie - who do we sue and report our concerns to if they are not responsible to us but overseas shareholders? Will all of the wealth be funneled off overseas, will Kalbar actually pay adequate royalties? (56) (57) (58) (59)

Given there are viable alternatives for mineral sands mining in northern and western Victoria and elsewhere around the nation, and how there is already a hugely successful and critical industry already operating in the area, this project must not go ahead. This campaign is not about being anti-mining, this is a completely and utterly inappropriate location for any mining development. There is a significant opportunity elsewhere in the state. This proposal will come with a large environmental cost, huge impact on local farmland and the local economy, and is strongly opposed by the majority of locals

As farmers across the nation get driven off their land by ever expanding mining operations, we must preserve the ones we already have (60). From 30 days to 40 days to respond, this is a truly unprecedented situation, given Kalbarra has had many years to compile their data. Many locals don't have good quality devices to contribute on a digital platform. Internet access is already noted as being of poor quality in rural areas, which becomes exacerbated during emergency situations like floods, fire and drought (61) (62). This proposed mine is considered to be in a highly inappropriate and dangerous location, threatening our food, water, health and already reduced river flows.

I thank you for the opportunity to address my concerns, and I hope they will be considered in this process.

Regards,

Shaun Flynn

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