

Submission Cover Sheet

Fingerboards Mineral Sands Project Inquiry and Advisory
Committee - EES

875

Request to be heard?: Yes

Full Name: Astrid Rose

Organisation:

Affected property:

Attachment 1:

Attachment 2:

Attachment 3:

Comments: See attached submission

Dear Panel Members

Please accept my submission re the proposed Fingerboards open cut Mineral Sands Mine below. I strongly oppose the development of this mine due to its location less than 500 metres from the Mitchell River; due to the unprofessional conduct of the proponent, their lack of understanding and knowledge of the community and its values, of the environment and physical landforms of the area, the vagaries of the climate, the impact of the past and recent bushfires, the six years of drought and now the Covid restrictions. The deliberate or accidental omission of crucial data and the many examples of misleading information in the EES is extremely concerning.



On many occasions community members who have spent all their lives in what will be the project area and have an intimate knowledge of the land and an understanding of the impacts of a mine in the proposed location have tried to advise or warn each of the four successive CEOs about issues connected to the project but were ignored. It is surprising then that many of the mitigation measures suggested by Kalbar in the EES rely on the co-operation and the participation of the residents and stakeholders, for example the Community Fund, (Vol 13, SEI Assessment page v).

Throughout the five or six years of their required consultation and engagement with both the local and wider communities of Bairnsdale, Kalbar's apparent lack of respect for anyone who raised legitimate objections or opposition to the project frustrated and angered the majority of concerned residents. The Community Fund is an initiative suggested by the proponent to encourage social interaction between the community and between mine staff. It might sound good in theory but in reality it will be of little value. Firstly, according to workers at the Douglas Mine 'they will be too tired after a 12 hour shift to participate in social and recreational activities' (Ian Ross Landcare Manager Kanangulk) and if the employees are local (Kalbar claimed in its Webinar just prior to the release of the EES that it is 'a local employer and 85% of the mine workers will be sourced from East Gippsland) the same will apply to the workers of Kalbar's mine. Kalbar didn't succeed in creating successful relations and interaction with our community who will therefore be unlikely to engage in the functions and activities sponsored by the Community Fund. No details are supplied in the EES about the amount of money committed to this fund or what conditions will apply. It is interesting that the Community Fund is the only instance in the EES where Kalbar appears prepared to put money into a mitigation strategy to benefit the community.

I have outlined my concerns about the loss of amenity, wellbeing, income and future opportunities for the region and its people, in no particular order of importance, below:

Loss of Visual Amenity and Landscape Values

The change in the landscape from a naturally beautiful area to a visually industrial and in many aspects unattractive area will cause a progressive loss of positive image and identity for those of the community who choose to remain here if the mine is established. There will be adverse impacts on the reputation of the produce of the area which will come under the spotlight as the area transitions from a contaminant free food bowl to food of a questionable quality. The region's reputation for 'clean, green produce will be damaged. Wool could be discounted due to excessive dust in the fibre. The nuisance value of noise, dust, road safety with 80 B Double truck movements day and night, as well as the loss of the visual appeal the area was once renowned for will be keenly felt by the local community.

Next generation children will not be able to enjoy the existing visual amenity. They will be impacted by a landscape denuded of trees and vegetation, of views of earth bunds and B-double trucks moving on the roads, upgraded power lines on tall power poles and exposed water pipes. The 15 -20 year life of the mine will extend beyond the present generation to their children and grandchildren. Landscape value for the community is aligned with 'place attachment' ie the residents have an emotional bond to their environment. Place attachment is the main concept of environmental psychology and means that this bond becomes the source of people's commitment, responsibility and management of the place. This sense of place is what makes one region or place different from another and makes our physical surroundings worth caring about. The emotional bond is usually formed firstly from the landscape values of the place, then an ensuing sense of identity and finally a feeling of belonging.

Kalbar's assessment of the aesthetic value of the mine site demonstrates their lack of understanding of the community's appreciation of the natural beauty of the scenery with its undulating hills, distant mountains and sweep of river. The Fernbank-Glenaladale Road is a known scenic route for cyclists and visitors from Bairnsdale and will be rerouted when the mine is developed. Kalbar claims in the EES that the processing plant will be located in a slight gully in a failed blue gum plantation and screened from residents and passing traffic by the trees. (EES plate 8.7)However the top of the processing plant will be visible and the plant will only be partially screened by the failed plantation trees which have stick like narrow trunks and thin crowns right at the top with no understory between the thin trunks so that the plant will be quite visible especially at night when lit up. The desiccated blue gum trees are also highly flammable.



Location of Processing Plant in Bluegum Plantation showing lack of understory for noise suppression

The lighting at the plant at night will appear more intrusive because there are no street lights or other illumination. Vegetation on the earth bunds and perimeter screening suggested in the EES would take too long to establish and thicken if live vegetation was used. There would be competition from Kangaroos, wallabies, deer and wombats and droughts too are an issue as well as heavy rain which would wash away the topsoil.

The computerised visual images in the EES are simply artists' impressions of what would be seen of the mine at various locations. But with the present day technology of computerised visual imaging, pictures can be made to tell any tale. A series of images showing the artist's impression of what would be seen before, during and after mining and obviously intended to highlight the landscape AFTER rehabilitation as the images are visually more attractive, brighter, more colourful, the green of the grass more intense than the 'before' and 'during' mining images. If only one or even two, of the images exhibited these variations it could be argued that this is a slight technical variation in the imaging process but the fact that this difference is obvious in all the sets of images suggests deliberate manipulation on the computer. The consultant has presented the most aesthetically pleasing images to suit their purpose. Computer generated images as well as photos are only 2 dimensional having height and width but lack the third dimension - depth, so they do not represent what the observer

would actually see. In addition the images only capture what one sees when stationary and don't reflect the transitional images seen when one is driving, walking or cycling. The loss of views and attractive scenery will have a major impact on the Fingerboards area which is the gateway to the Mitchell River National Park, and the contrast of a rugged natural environment with an industrial mining landscape will have a negative impact on the visitor and will detract from the experience. This may lead to negative publicity about the area and will impact on the number of repeat visits.

In the EES we are told that over 800 mature trees will be removed and 300 hectares of native vegetation - this is excessive and well above any other recent mine project. The consequence will be a loss of shade and protection for stock from wind, hot sun and rain. Lambs will be vulnerable, as will merino sheep off shears.

Kalbar appears to have forgotten that much of the vegetation and especially the wild flowers are still in a transition stage after the fires in 2014. Quite a lot of seed in the ground has not germinated because of the drought which only broke late in 2019 so that the veracity of the surveys of flora done by Kalbar's consultants needs to be questioned.

Apart from loss of visual appeal, there will be an economic loss because when vegetation is removed the land and soil becomes more susceptible to erosion. The health of farmers' stock may also be impacted. Next generation children will have the additional work and expense to re-establish trees

Impact of Road Diversions and Transport of HMC to the Port

When these road diversions were queried by a worried landholder who would be affected by them the Kalbar CEO at that time replied flippantly, "they are just lines on a map". However for that farmer the diverted roads would mean:

- * increased fuel costs
- * an extra 40 minute round trip to his turn out Paddock
- * difficulty in moving his stock from property to property

For several stakeholders there was anger that they hadn't been consulted beforehand that part of their properties would be cut off and used for the road diversions. In one case a rerouted road would cut straight through the owner's cherished bush block with vulnerable biodiversity.

For most locals the road diversions will mean noise and dust and increased traffic during construction which will be inconvenient and lead to delays, and the increased risk of accidents. In 2019 Kalbar informed the community at a public meeting that the construction period would last 9 months. This time frame roughly corresponds to the time of construction for other similar sized projects. Yet in the EES the construction time given is two years, considerably longer, and unless this is an exaggeration, it increases the risk of community members feeling isolated and disconnected from each other and of an increased number of accidents. The average age of most people in the region being 44+ they are more vulnerable to loss of concentration and fear of increased competition on the road from the number of trucks and vehicles associated with the mine work.

For the community there will be the noise of construction and ongoing maintenance due to the heavy traffic of 80 B Double truck trips carrying the HMC slurry and the impact of the water on the road to lower dust. The road diversions will make it more difficult for local residents to maintain a sense of community and will be another reminder of the divisive schism between themselves and the Kalbar staff and mine workers.

In the EES Kalbar constantly emphasises that its preferred option for the transport of the HMC is by truck to a rail siding in East Fernbank and then by rail and to the port from where it will be shipped to its destination. This option is dependent on the completion date of the new bridge across the Avon River in Stratford. Although the date of completion is sometime in 2021, Kalbar fails to mention that after the completion of the bridge there will be further upgrades to the line necessary before freight trains can pass. This further upgrade may take some years and there is no starting date envisaged yet for the work. Kalbar has also omitted mentioning that it will have to purchase a freight train which will have to be compliant with the specifications of the rail line and weight of freight. (Discussion with Station Master at Sale Station in March 2020). It may therefore be some years before the rail option becomes possible. Until then it is imperative for Kalbar to ensure the safety of the school children at Lindenow Primary School which is on the transport route via Lindenow South to the Highway. In the EES it is proposed that the B-double haul trucks will avoid morning and afternoon school drop off and pick up times. This would mean that no haul trucks would pass the school between 8.30-9.30am and between 2.30-3.30pm. Kalbar also states in the EES that it will avoid peak traffic times, so no passing trucks between 7.30-8.30 am or 5-6pm. This reduces the permissible times for the trucks to be on the road for a total of 4 hours. But The EES also claims that truck movements will be avoided during the night because of noise. Consequently there will be a greater volume of the 80 return truck movements in the remaining hours not restricted which will create more concentrated noise, disturbance and safety issues for people living alongside the road and other users of the road. No amount of income from the mine is worth the loss of life of a child hit by one of the trucks. There is also the safety issue of drivers being tired as well as drivers being behind schedule and in a hurry.

Impacts of Noise

The processing plant was relocated closer to 9 homes. At no time were the owners ever contacted and consulted. Kalbar has said that noise will not be an issue because the plant will be in a gully and screened by the plantation it is in. But the height of the plant is 15 metres and will extend above the tress which are in many cases only 6 inches in diameter. It is a failed plantation and there is no understory between the trees and only small, sparse crowns, not sufficient to suppress the noise. Noise can have huge impacts on health.

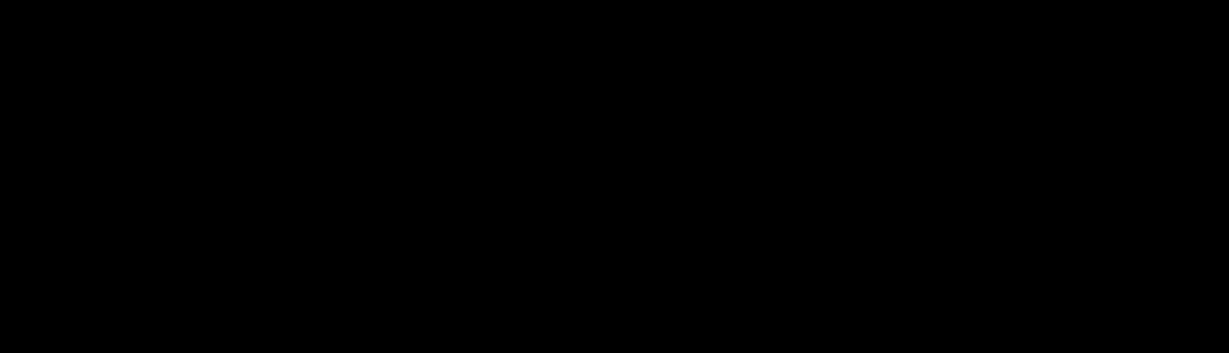
One member of our community toured mineral sands mines in WA and Western Victoria and noticed that the mines only operated during the day- the reason given being that the local community would not tolerate 24/7 operation because of disturbance when sleeping. Kalbar had continually promised there would be consultation with the community to determine any specific needs of nearby affected residents, however this survey of 'sensitive receptors' didn't eventuate. This would have informed them about the two autistic children, several shift workers, a number of elderly and sick residents who required extra consideration and mitigation strategies. The community's experience with Kalbar's promises gives them little or no hope that the many strategies included in the EES will ever be implemented or

successful. Residents near the Douglas mineral sands mine have reported that the earth bunds at the Douglas mine designed to suppress noise only marginally softened the impact.

Noise effects are influenced by the weather. On windy night it is carried two or three times the distance in the direction of the prevailing wind. Kalbar's weather station was placed on their own land in front of a hill which protected it from the wind. This meant that the readings taken to determine wind strength were inaccurate. Kalbar's explanation in the EES that although the equipment didn't provide measurements of wind strength for almost three months they averaged the measurements they had. This result would not recognise the strong wind gusts which can make their calculations for the distance dust or noise will travel totally unreliable and the impacts will be much worse for some residents.

Exposure to noise leads to multiple adverse effects on the physical and mental state of mining communities as a whole. Some of these effects, for example, are reduced performance, sleeping difficulties, annoyance or stress. It has to be recognised as a major pollutant of the mining environment. Exposure to noise from the mine site will lead to multiple adverse effects on the physical and mental state of people living in the vicinity of the Fingerboards mine who have been living in a quiet rural location with no traffic or industrial type noise. Farm noises like chainsaws, tractors and even occasional bulldozers generally cease at the end of the day. In city and urban landscapes residents become habituated to the daily noises of traffic and other extraneous noise so it usually has little impact on their daily lives. And the noises generally cease or are greatly diminished at night. A similar comparison can be made with the lights illuminating the mine pit, processing plant and other facilities. There is no competition at night in rural areas, not even street lights so any light source is far more obvious and distracting.

Impacts from Changed Land Use



A couple of the Councillors in EG Shire Council and a couple of the business organisations hope the mine will stimulate investment in the area. However as some of these are friends of Kalbar staff they have a conflict of interest. Yet when the businesses in town were door knocked and asked to sign a petition most said that the mine would not improve their own business.

As well as disruption to the community by road diversions, there will be reduced income for farmers and the vegetable growers will be in competition with the mine for water and will have less or no opportunity to expand their businesses. There will be less farm work available, less business for rural suppliers of goods and machinery. Stock and station agents

will lose income as will shearers and milkers for dairy farms. The ratio of mining jobs and associated employment is said to be 2:1-check whereas according to the VFF the ratio of agricultural jobs to associated employment is 4:1

Over 800 old growth trees will be cleared so there will be loss of shade and protection from the wind for stock. The region will lose a lot of its biodiversity and its flora and fauna which are an integral part of its identity and uniqueness. For the community the area will lose its 'liveability'.

There will be a heightened risk for children's safety on the roads and local children will lose the bonus of growing up in a child friendly, attractive environment. Some children will lose the opportunity of a future working on the family farm.

Kalbar claims in the EES that these disruptions and impacts will be temporary until they have a rail siding and the new Avon Bridge is completed and they can transport the HMC by rail.

Unplanned Mine Closure

Unplanned mine closures can have a huge impact on the community. Kalbar has not identified or planned for this possibility in its EES. Between 1981 and 2009 only 25% of mine closures were planned. ('Dark Side of the Boom': the Australia Institute and also 'Environment, Community, and Mine Closure' srk. com.) The remaining 75% were premature or unplanned, resulting in mines being left in 'care and maintenance' e.g. Douglas mine near Balmoral. Forty-four percent of mine closures were caused by economic factors - due to high costs of operation or fall in commodity prices. Another 34% due to inefficiency issues; 6% due to environmental causes, usually floods; 11% regulatory; 5% safety reasons; 11% due to community pressures. Due to its location near the Mitchell River, approximately 350 -500 metres at the nearest point, shortage of water and competition for water issues, and proximity of a viable food industry, there is a very high risk that Kalbar's mine will close well before its anticipated 15-20 years duration. Consequently any benefits predicted by Kalbar will be diminished and if cost blow outs result in financial losses to the community who then have to foot the rehabilitation bill or pay tax levies to repair environmental damage, there will be anger and resentment that the objections voiced by the majority of the local and wider communities and lodged in multiple submissions were ignored. ('Ground Truths: Taking responsibility for Australia's mining legacies') Kalbar has not included in its EES a detailed risk management plan should the mine close early or how to mitigate the risks to the community of the loss of employment of 200 mine operators and the 200 associated businesses it claims the project will create. It has ignored the issue of incomplete rehabilitation, the management of now superfluous equipment and safe removal of any residual waste. Nowhere has it satisfactorily identified the risks and developed controls to achieve sustainable unanticipated mine closure, rehabilitation and relinquishment. And, in case it on sells the project or the company is subject to a takeover by another company, there should have been incorporated in the EES a satisfactory mine closure plan that will be followed by the new owners.

Sustainable Development

I do not believe that Kalbar has satisfactorily made a commitment in the EES to leading practice sustainable development as a prerequisite to attain and maintain its social licence to operate in our local and wider communities of East Gippsland. It has not demonstrated that it meets the needs of the present generation without compromising the ability of the future generations to maximise opportunities and meet their own needs. Ever since its arrival in our community it has not demonstrated to the community's satisfaction that its mining proposal is a sustainable development that will be financially profitable for the community and region, that it is technically appropriate, environmentally sound and socially responsible. It has not achieved a productive relationship between the stakeholders, itself and the Government mining authorities.

According to the Mineral Council of Australia, 'The development of a mining operation, including its processing facilities and infrastructure usually involves the permanent alteration of existing landforms, disturbance to flora, a disruption of flora and fauna habitats, hydrological impacts and potentially some level of contamination.' Although the community accepts that there may be some impacts of its project Kalbar has not demonstrated to the satisfaction of the community or in its EES, it would assume that these impacts would be very minimal. But it has not fully investigated the important impacts of drought, floods and East Coast Lows or provided effective and acceptable strategies for monitoring and managing these impacts. Further assessment and monitoring is required of erosion, the impacts on the aquatic life in the lakes and in the Mitchell River and the impacts on the Black Bream, the 63 endangered Burrunan Dolphins and on recreational fishermen as well as on the Silt Jetties, one of East Gippsland's most visited tourist attractions. The mine site, elevated on a plateau above the Mitchell River and gouged with steep, deep gullies sloping downwards to the river, when denuded of vegetation will be prone to erosion and soil, sediment and toxic waste will flow into the Mitchell during floods, East Coast Lows and heavy rain.

Loss to the Community of Recreational and Other Activities Associated with the Mitchell River

The Mitchell River can be viewed as the unifying amenity of the region. Not only does it enhance the liveability of the area but both the quantity and quality of the water available determines the economic viability of the industries dependent on it and which fluctuate with the River's levels. Tourism ventures, the Horticulture and Agriculture industries, Picnic Point Apples, population growth and the whole reputation of the region as a desirable destination to visit, retire to, or raise a family in, rely on varying degrees to the Mitchell River and Gippsland Lakes. Of course population growth can only be sustained by an adequate supply of job opportunities but losing employment opportunities because of a mine that might only be temporary and might not even be profitable is not the way forward to increasing job numbers. There are 2000 jobs for pickers, tractor drivers and other workers in the Horticulture industry. There are at least 254 jobs at the Bairnsdale branch of Vegco where salad vegetables grown in the area are packed. Bill Bulmer, one of the most profitable of the growers in the Lindenow Valley said that the business income fluctuates with the river levels. The family produces a fifth of Macdonald's' national lettuce supply. When the river level are low Bulmer has to reduce plantings. "We've taken measures to reduce plantings by about 20% which means about 15 tonnes less of spinach" Bulmer Farms' managing director said.

Most of the Horticulture businesses are multigenerational with sons operating and heading the businesses now.

Impact of the Mine on Tourism

East Gippsland Shire Council's vision is 'to develop East Gippsland into the most 'liveable' region in Australia' and its plan for 2017-2021 claims that 'liveability is the little things that make people want to live there' and embraces the amenities the area provides at present as well as future expectations. Much of the amenity of the region which will host the mine, if approved, is intangible yet it has a monetary value the loss of which will constitute economic disadvantage.

The region embraces the Mitchell River National Park with its recreational activities including white water rafting, kayaking, Bush walking, and its popular 'Den of Nargun' reminiscent of the Indigenous history and traditions of the area. The 'Den of Nargun' attracts over 70,000 visitors each year. The heritage listed Mitchell River flows into the famous Gippsland Lakes offering boating and swimming, sailing, recreational fishing and hundreds and thousands of tourist dollars.

This loss will also translate into lost income for the hospitality industry, restaurants, hotels, motels and all Service industries, and will not be buffered by income from the mine. Tourism income has been decimated recently by the Corona Virus crisis. However when travel restrictions are lifted it is the domestic tourism market that will boom first at both local and regional levels and this will present an excellent opportunity for East Gippsland to promote the diverse attractions of the Gippsland Lakes, adventure activities and ecotourism, recreational fishing and clean, green fare.



Gippsland tourism marketing needs urgent action

Gippsland Nationals MPs have called on the State Government to provide urgent stimulus for the Gippsland tourism industry as coronavirus restrictions begin to ease.

Member for Gippsland East, Tim Bull, said he was very concerned that there was little to no Victorian tourism marketing at the moment while other states were aggressively targeting Victorians.

"Our East Gippsland tourism sector has been absolutely smashed by drought, bushfires and now coronavirus and as restrictions ease, we need to be in the market promoting our region as a destination," Mr Bull said.

"It alarms me that New South Wales and other states are already actively marketing in their social and traditional media fields, but Victoria is nowhere to be seen.

"East Gippsland needs urgent support to help its businesses to recover."

Member for Gippsland South, Danny Brien, who raised the matter with the Minister for Tourism in Parliament last Wednesday, said Victorian Government tourism agencies seem to be following the same extremely conservative approach of the Andrews Labor Government on the easing of restrictions.

Until yesterday the Visit Victoria website referred to the opportunities for tourism in Victoria when restrictions ease - even though night stays have been allowed since Monday and were announced nearly 10 days ago," Brien said last week.

... campaign of marketing

The fall out of bitter community opposition to a water and air polluting mine which will continue more intensely if the mine is approved will cost the Service providers a badly needed boost to their incomes and will be a lost opportunity to recoup their recent losses during the Covid crisis.

The Fingerboards, on a major tourist route from Melbourne is the gateway to the tourist hotspots of Anguvalle, Dargo, with its walnuts and trout fishing plus four wheel driving, the Alpine National Park and Wonnangatta Station. The visual impact of an open cut mine with its noise and dust on the way to the Mitchell River National Park is not consistent with the image of a pristine natural environment free from pollution.

In the financial year 2018 to 2019 Australia generated 60.8 billion in direct tourism (GDP).this represents a growth of 35% over the previous year and faster than the national GDP growth (www.tourism.australia.com). Tourism generated 20% of total world employment since 2013. It not only generates revenues for a region or country and a cultural wealth but it is also one of the most important economic engines for growth and development (www.tourism-review.com)

Mining and tourism are not compatible in this region because the location of the mine threatens to impact adversely on the most important landscape features of the area.

Also, “The food and beverage manufacturing industry is the largest industry in Australia” (www.futureinaustralia.com)

Food manufacturing and production are fundamental drivers of East Gippsland’s economy and our fishing industry is the largest employer of this sector in regional Victoria. These could be adversely impacted by an open cut mine on a plateau above the Mitchell River on which all three industries depend-tourism, fishing and vegetable production.

The tourism industry in East Gippsland attracted 2.788 million visitors to December 2018, contributing \$4,695.680 million for the region. This is an increase in visitation of 19.3% on the previous year. East Gippsland’s share of visitation in Regional Victoria is 5.1%.

But if the mine is approved, people selecting destinations for their next vacation will have a negative perception of the region because of the mine

The Adverse Effects of Covid -19 on East Gippsland Tourism

The impacts of the Corona Virus will mean that businesses that have hibernated, like Tourism and Hospitality will need promotion, stimulation and state-wide advertising, otherwise the immediate and long term business impacts will be significant. This will be especially important for areas like East Gippsland where Tourism and visitor flow is a critical part of the economy.

Current figures show that East Gippsland attracts the highest numbers of tourists in Gippsland and together with the Service Industry will be the driver of economic recovery when Covid restrictions are lifted. Domestic tourism will flourish once our State borders are open again. The Lakes and Mitchell River will be the focal point of East Gippsland Tourism

and it will be vital to protect the physical and environmental integrity of both this heritage listed river and the Lakes RAMSAR protected wetlands. Much of the amenity of the region is intangible yet it has a monetary value which could be reduced if the mine is developed. Not just the probability of the water being contaminated and its clarity polluted by sediment, but negative public perception, once again, could come into play and be economically damaging to the domestic tourism market which will boom at both local and regional levels post the pandemic when it will be an excellent opportunity to promote the diverse attractions of the Lakes, adventure based activities, recreational fishing and clean green fare. In its EES Kalbar underestimates the value of tourism. The negative media attention that will result if the mine is approved, the fall out of bitter community opposition to a water and air polluting mine will cost tourist operators, Service providers and the local, regional and State economies a much needed boost.

The reputation of the region as a desirable place to visit, retire to or raise a family depends heavily on the unspoilt natural beauty of the Gippsland Lakes and the Mitchell River.

'Towards 2030-Gippsland Tourism Management Plan' states that Gippsland's destination appeal is underpinned by its outstanding natural attractions. The Plan's vision is that Gippsland's natural beauty, outstanding experiences will inspire the world 'to visit but it states that if this vision is to be achieved we have to 'ensure long term sustainable management of natural and cultural assets and to promote the quality of local produce.' If tourists or visitors to the area see dust from the mine on the vegetables or blowing from the mine site, piles of overburden, or from the trucks passing by, they will question the quality and cleanliness of the produce, the air that they breathe and the water of the river and Lakes. One of the long term plans is to invest more heavily in existing natural assets. This includes \$2 million to bolster the tourism appeal of the Mitchell River National Park which is jointly managed by the Gunaikurnai people through GLAWAC towards a Mitchell River Lodge/luxury tent accommodation. The likely potential risks of damage to the environment by the mine and the lost landscape values and treeless views will not create a positive impression and will attest to the complacent acceptance of valuing dollars over one of Victoria's most valuable assets.



Eco Tourism Rugged country Mitchell River National Park

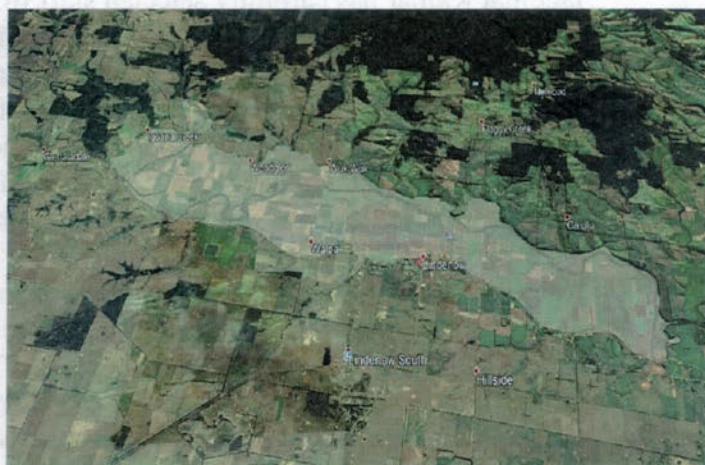
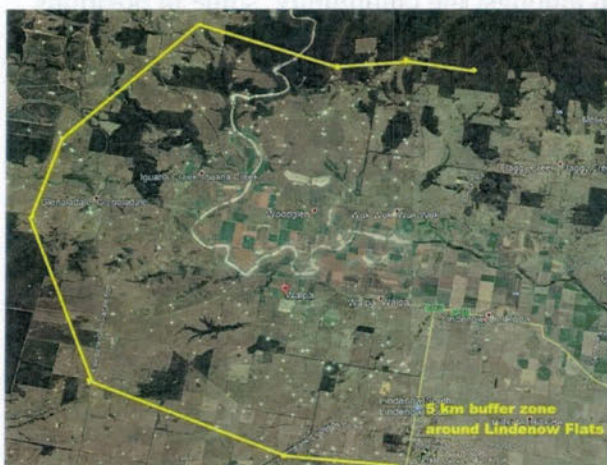
Change in Demographic

If Kalbar develops its Mineral Sands Mine, the intervention of a large scale mining operation will trigger significant demographic changes which will result in both a structural and functional transformation of the local social environment. Kalbar has called itself a 'local employer'. This statement confused our community for some time because in one of its information bulletins to the community. It described what it meant as 'local' being anywhere in East Gippsland, or in Gippsland, or in Victoria or in Australia. Yet at the Field Days annual event to showcase the Community, it provided a sheet for anyone who entered the Kalbar tent to write their names and contact details if they wanted a job in the mines with the reassurance that the jobs would be for locals. The same register for those who wanted jobs in the mine was also displayed. Several locals said later that they felt positive about securing employment because they had been reassured by Kalbar staff when questioned about the certainty of the mine being approved that it was 'a done deal'. In Kalbar's Webinar just prior to the release of the EES (27 June), Victor Hugo, the CEO previous to Jozef Patarica the fifth and present CEO assured the participants that 85% of the jobs would go to people in East Gippsland. It is doubtful that there will be enough trained or experienced miners to fill all positions and there may be a lot of disappointed and angry locals when they realise that the 85% figure was a lie, or at least, misleading. In a mining magazine Rob Bishop, the first CEO of Kalbar Resources says that with the closure of the Hazelwood Mine in the Latrobe Valley, Kalbar sees itself as filling its role and implies that with the large numbers of unemployed miners in the Latrobe Valley, it will be easy for Kalbar to source a fully trained workforce. If this happens. The workers will probably commute the reasonably short distance to the mine site on a daily basis and return home after their shifts to avoid accommodation and taking their wages with them to spend in the Latrobe Valley. While this would still inject money into the Valley's economy it won't stimulate growth in East Gippsland, which I doubt that the supporters of the project here would realise. The community would therefore become more transient and this would change the identity of both the local and wider Bairnsdale

* in Kalbar's office in Bairnsdale

communities as it transitions from a retiree, family and tourist destination to a mining oriented community. After the exodus of community members who move from the area due to loss of their farmers for 20 years, or from the loss of a viable business, or from loss of the amenities they once enjoyed, the local community will lose its identity and become a satellite of Bairnsdale, relying on it for its recreational and social activities far more than it did before. Local Community sporting clubs, like the Glenaladale Cricket and Tennis, the Lindenow South Football Club could cease to exist due to loss of members and voluntary organisations like the Glenaladale and Fernbank CFA brigades could struggle for members to protect the community from fires and other emergencies.

Kalbar obviously expects that many families will leave the local area and does not seem concerned about the fact. In its EES it suggest that if people in the community don't like the impacts of dust they can close their windows, or avoid being in the garden, or hang their washing inside. If they don't like the bare, industrial look of the upgraded tall power poles or the above ground pipes or the changed views of treeless surrounds and B double trucks, they can move to the other side of their house which has a better outlook, and if the noise disturbs them they can keep their windows closed. And the final arrogant statement that if they don't like it they can sell up and move somewhere else is devoid of any empathy.



Map showing 5km buffer and exempted from Mining Mitchell River Valley Vegetable Growing Area

If Kalbar truly wanted to reduce the impact of its mine for the 15-20 year operation it should increase the distance between the mine site and the exempted zone by a minimum of 10-20 kms. The exemption by the Government of the Lindenow Flood Plain from mining is an admission by the Government of the importance of this food production area. The many permanent residents who have moved to the area for the intangible amenities of peace, quiet and the natural beauty of the area will move away as soon as these amenities are lost. Kalbar maintains that 85% of the mine workers would be from East Gippsland. But in a mining magazine Rob Bishop the first CEO of Kalbar Resources says that with the closure of the Hazelwood Mine in the Latrobe Valley. Kalbar sees itself as filling its role and implies that with the large number of miners out of work it will be easy for Kalbar to source a fully trained workforce. If that is Kalbar's definition of local, workers will commute to the mine on a daily basis (75 minutes drive). The Community then will become more transient. This will change the identity of the Community which will become more dependent on Bairnsdale, relying on it for its social activities. Community recreation groups will fold and clubs like the

Glenaladale cricket and tennis clubs will cease to exist as the transient mine workers will travel home after their shifts and will spend their wages in their own towns. The expected injection of money into the community will not eventuate.

Impact on Health with Special Regard to Mental Health

The project cannot operate without impacting adversely on the health of the local and also in certain cases, on the wider communities of East Gippsland. The levels of anxiety and distress being experienced now, before the project might even begin, will escalate to an unacceptable level if the project proceeds. There have been incidents of abusive confrontations when key stakeholders who are hoping for generous financial compensation for their land have verbally attacked and threatened those others who oppose the project. Community angst has reached a level of intensity such that were the mine to be developed it will impact on the emotional stability of many residents and intensify the breakdown of communication between Kalbar and its staff, dissolve any remaining spirit of cooperation and be the source of ongoing hostility, mistrust and bitter opposition. The division between the majority of the community and Kalbar staff and its comparatively few supporters has already escalated to a point which is already beyond repair. It hasn't helped that the proponent has done favours and offered inducements to those who support their project. Also causing friction and resentment is the fact that Kalbar has carefully selected staff from amongst the community, some in positions of influence in the community, and use them to actively generate support for the project and suppress community opposition. For privacy reasons I cannot provide more detail about this in my submission but will clarify this claim at the Panel Hearing.

East Gippsland has a high incidence of people with respiratory issues, especially asthma- one of highest incidence of asthma in Victoria: 'The percentage of the population of East Gippsland in reporting Asthma, high blood pressure and heart disease is higher than the average' (ww2.health.vic.gov.au).

Kalbar says if necessary they will curtail activity on windy days but once mining operations begin and production targets become an issue it is doubtful whether this monitoring will happen or how long it would be maintained. There are few details given in the EES about what wind strength would trigger the necessity to stop work and when the Mine Manager has to weigh up the cost of temporarily stopping work against the financial cost of the stoppage the final decision might not be based on the wellbeing of the community. Iluka made the same commitment to the people near the Douglas mine in its EES but when a community member (George Robertson) reported that it was too windy and dust was blowing over the area he was told he would have to pay 74,000 because that would be the cost to the company if they halted operations. On the Webinar on 25th June Victor Hugo said that Kalbar would probably look at the weather forecasts to determine whether it would be necessary to stop work but the weather forecasts here are notoriously unreliable because the closest weather station is at Mt Moornappa or the Bairnsdale Aerodrome. During Autumn and Spring and also during severe dry spells and East Coast Lows strong wind gusts up to 90 or more km/hr can blow for many days and it is doubtful that work would be suspended for that length of time. It would not be cost effective for the company in lost time, production and wages and that would be their bottom line.

Guest speakers who live near Iluka's Douglas Mine were invited to talk about their experiences at a meeting organised by the community. They reported that members in their community were experiencing deteriorating mental and physical health conditions. There is already a shortage of doctors and medical facilities in Bairnsdale and at the East Gippsland Hospital in Bairnsdale and increased health issues in the communities impacted by the mine

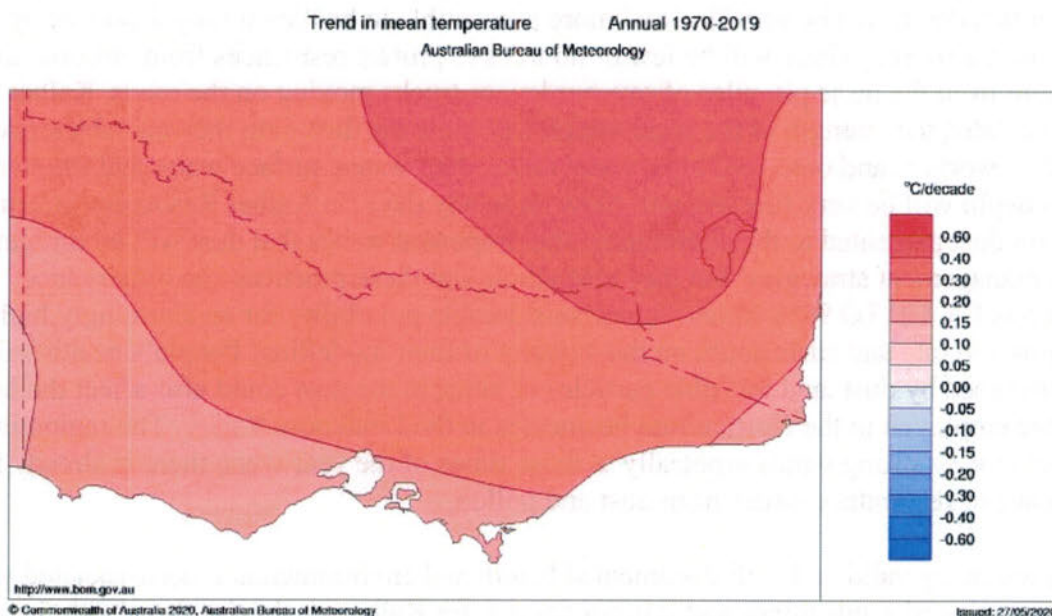
or injured or sick mine workers would put added pressure on the health service providers. Already some of the clinics have closed their doors to new patients... There are fewer people aged 15-24 in East Gippsland than in the rest of Australia and more people aged 45 and over - which includes 24% over 65 ('POPULATION HEALTH PROFILE of the EG division of General practice-Australia Institute')

Despite the claim from the proponent that dust will be mitigated by certain management strategies, an unacceptable amount of dust will be inevitable because of the wind, the depth of the mining almost down to 50 metres - much deeper than usual mineral sands mines. The sand at this depth will be very fine and more susceptible to be blown long distances by the wind once airborne. There will be few or no trees to protect residences from airborne dust escaping from the mine pit, piles of overburden, or trucks moving on the roads. Kalbar has miscalculated the strength of the wind which will blow the dust onto the vegetables, growers and their workers and onto roof tops, water tanks, dam water, surface water and the river. and at this depth will be very fine and will blow on windy days. In Kalbar Resources information sheet on dust presented to the community, the proponent writes that dust will be mitigated by 'best management strategies' but they also admit that these practices can only reduce emissions BY UP TO 90% which leaves considerable possibility for an alarmingly higher transmission rate and casts doubt on the veracity of their modelling. People's health will be compromised by dust and invisible particles of silica in the dust could also affect the health of those employed in the Horticulture businesses in the Lindenow Valley. The region is subject to very strong winds especially at those times of the year when there is already a high incidence of respiratory issues from dust and pollen.

There are many valid and well documented health and environmental risks associated with open cut mineral sands mines and it is not enough for Kalbar to dismiss these with the reassurance that its modelling and management measures described in the EES offered reassurance and guarantees that there won't be any risk to people's health or to the Horticulture Industry on the Lindenow Flood Plain. Apart from the fact that they based their modelling on wrong results for the underestimated wind speed measurements, every proposed location for a mineral sands mine has its own unique soil structure, environmental issues and weather conditions and these will determine whether the area is appropriate for the establishment of a mineral sands mine or if the risks would be too great. Even using the most reliable modelling methods Kalbar can only reduce the risk of dust but the impact of unpredictable climate events and anomalies in wind behaviour and the possibility of human error as happened in their determination of wind speeds, cannot always be circumvented regardless of the most feasible sounding impact mitigating measures...

Climate Risk

Kalbar claims in its EES document that it's proposed mine will provide employment and benefits for the Community, the region and the State for 15- 20years. But it has failed to assess the impact of climate change into how realistic this claim actually is.



Time spent in drought is projected to increase over the course of the century. Extreme temperatures are likely to increase at a similar rate to average temperature. There will be a substantial increase in the temperature reached on hot days. There will be more hot days (greater than 35°C), and warm spells will last longer. Rainfall events are predicted to lead to increased periodic flooding. (climatechange.vic.gov.au)

Increased hot days and heat waves will exacerbate health risks to the Community from dust and the stress of perceived and realised losses of jobs in the Horticulture, agriculture, tourism and Service industries will result in mental health issues, putting greater pressure on hospitals, medical and emergency services.

More frequent extreme weather events over the 15 year duration of the mine will lead to increased demands to protect the State's world class Chain of Ponds on the Perry River, system as well as the Gippsland Lakes RAMSAR Wetlands. The Victorian Government has already spent millions on funds to protect, improve and conserve the Chain of Ponds: \$1.6 million to West Gippsland Catchment Management and many more millions on extensive programs for the Mitchell River and Lakes. ('Protecting our Ponds': wcgma.vic.gov.au). If there is leaching or seepage from the tailings dam or damage to the wall there is more than a high probability that these pollutants will find their way into these waterways causing long term damage.

Despite an overall trend in declining rainfall, more of the rain that does fall will be in increasingly extreme downpours leading to an increase in the incidence of flooding events. Because of the topography of the mine site and the steep gullies, it will be impossible for Kalbar to prevent rainwater carrying toxic residues from the mining operations from flowing down the gullies into the Mitchell River.

East Gippsland and in particular the Fingerboards area is home to many species and ecological communities including the State's floral and fauna emblems. The impacts of future climate risks in conjunction with the alterations to habitat due to the removal of over 800 mature trees and over 300 hectares of vegetation will not only impact severely on the biodiversity in the project area but will increase pressure on already threatened species. It will take many years to rehabilitate the project area and to re-establish lost biodiversity, if at all possible, and successful, healthy growth will depend on the future weather patterns and events and whether Kalbar will continue to monitor the results for as long as it takes to restore the vegetation and the natural landscape back to its original condition and not take shortcuts due to unanticipated weather events due to climate change. There will also be the challenges of competition with wildlife grazing on the tender new growth, and the impact of drought will make it necessary to replant lost seedlings/tube stock. In nature perhaps one seed in a hundred will germinate.

It is imperative that Kalbar factor the effects of climate risk in its EES and should not be allowed to develop a mine at the Fingerboards if there is any risk of inability to restore lost trees and biodiversity for the future productivity, amenity and incomes of the next generation.

Victoria is Australia's largest producer of mutton lamb and dairy products and other important products are wool, beef and vegetables. Vegetable growing is highly sensitive to reduced water availability and should not be put at risk by an open cut mine which could impact on the income it contributes to the State's economy which is 150-200 million dollars annually. In dry spells and times of drought it should not have to compete for water with an industry that claims it requires the allocation of a fixed volume of water- 3 Gl - regardless of likely climate changes in the 15 -20 years of operation and rehabilitation. Expected and predicted rises in temperature and lower volumes of rainfall will require over the coming decades increased protection for livestock which will be exposed to greater risk than usual with the removal of so many trees from the project area and mine sites.

Impact of East Coast Lows

There is no mention of East Coast Lows in the EES. Kalbar chose to ignore the advice of long term farmers and landowners who tried to warn them about the impact of East Coast Lows. East Coast Lows (ECL) are intense low pressure systems which occur, on average, several times each year off the eastern coast of Australia, in particular southern Queensland, NSW and eastern Victoria. Although they can occur at any time of the year, they are more common during autumn and winter.

East Coast Lows: are generally associated with

- Gale or storm force winds.
- Heavy widespread rainfall.
- Falling trees and flash flooding of rivers



Flooded paddock during East Coast Low

They can form at least once a year but there is no evidence of a trend so that Kalbar must have measures in place to prevent erosion, the dam walls on the gully creeks from breaking and carrying sediment into the Mitchell River. There has only been minor occurrences of ECLs during the years Kalbar has been in our area, however there are highly likely to be at least several major ECL events during the 20 years duration of Kalbar's project. The extreme winds can carry airborne dust greater distances and over the vegetable crops and residences. The heavy rain can wash mine wastes into the river and wash away topsoil and seed or seedlings for rehabilitation. This could delay or prevent timely or successful rehabilitation of farm land.

- They can last up to a week and wind gusts of over 100km /hr have been recorded in Victoria.
- Five East Coast Lows occurred during June 2007 - a rare, if not unprecedented sequence.

Impact of Floods

Kalbar has seriously underestimated the impact that floods will have on every aspect of its project. In June 2007, as mentioned above 5 major ECLs impacted the East Coast. Four of these occurred in succession along the East Coast of Victoria, all producing heavy rainfall. The last of these resulted in up to 300mm of rainfall resulting in major riverine flooding across the Council area and the Gippsland Lakes rising 1.3m above normal levels.



Lindenow Valley flooding south of the proposed mine site 2012

<https://www.ses.vic.gov.au/get-ready/your-local-flood-information/east-gippsland-shire-council>

So, not only should Kalbar carefully assess any impacts from the mine that would adversely affect the preservation of its Cultural Heritage, history and traditions but should protect the area's reputation as a leading food and fibre hub of Victoria by providing a buffer zone between the river and the Lindenow Valley Flood Plain the State

Mining is about Risk Assessment. The many instances of contradictory information, lack of details and misleading data used in the modelling given by Kalbar's paid consultants in the badly compiled and collated EES document reveal that this project is speculative with too high a level of risk of detrimental impacts to the environment, the region and the community.

It reflects the lack of understanding of the proponent of the environment and community in which it proposes to locate its mine. Kalbar fails to acknowledge the huge negative and costly impacts of this mine, in such an inappropriate location close to an iconic heritage listed river, so many residences and existing and sustainable industries with which it not compatible.

