Good afternoon. My name is Kerry Knights.

introduction

I'd firstly like to acknowledge the Traditional Custodians of the land we are on, the Gunaikurnai people, and pay my respect to their Elders past, present and emerging. And also to acknowledge the deep connection they have to land, which goes back thousands and thousands of years.

Next, I would like to welcome the Panel to East Gippsland, and thank you for the opportunity to discuss my thoughts with you.

Today, as I share my perspective, I will have some photos of the landscape and such rolling along in the background. I know that you've been around the Glenaladale area, and so some of these images will be familiar to you, but others, not so.

As one of the submitters (488) mentioned, "the landscapes reveal themselves to you slowly, as if speaking a poetry of the land, not immediately audible to passers by"

I initially thought I might struggle to fill that time allocated... now, as I review what's unfurled with the Project and Panel hearing process, I'm concerned that I'll not be able to say all I want in that timeframe. But I'll give it a decent crack, because this is my only opportunity. And there's so much I want to say.

Personal story

As you will know from my written submission, one of over 900 received opposing this project, I came to the region around 20 years ago, very pregnant with my eldest, and essentially knowing no-one. And now I couldn't imagine living anywhere else.

Whilst this is not where my family are originally from, it's where my daughters were born. I understand that deep sense of connection that other submitters have spoken of, and how much is threatened by this project.

I grew up in Central Victoria, in a small country town. And, at lots of levels, it's not that dissimilar to around here. The ancient trees, the agricultural landscape and that strong sense of community in particular, all resonate. We lived on the banks of a creek, which fed in to the local major river, and I spent all my free time outside, exploring the natural landscape.

This notion of Solistalgia forms part of a wider issue with this project, and that includes the principles of social licence. And social justice. But I'll discuss that more, later.

In my submission, I spoke of my role as a Mental Health Clinician, and the capacity I have, armed with a lanyard and a pen, to sign a document which will have someone immediately removed by Ambulance personnel, sometimes with Police involvement too, from their current situation. Then, possibly being sedated and/or restrained, and sent off to a locked mental health inpatient unit. All this being against their wishes, and because they meet a five point documented criteria around risk, along with some other factors. And this is all very legal.

The Pub Test

It's essential to be mindful that just because something is deemed legal, doesn't make it morally or ethically right.

Examples of this include the indefinite detention of refugees by the Australian Government. The public outcry over the detention on Christmas Island of the Murugappan family from Biloela, Qld, and their two Australian born children is the most recent instance which was highlighted by the media. Their ongoing plight escalated when the youngest, Tharunicaa, was medically evacuated to Perth for overdue treatment of life threatening sepsis.

Or the Victorian Government calling a Seven Day Snap Lockdown (27 May 21), and not providing financial support for vulnerable workers, such as Casual employees, during that time.

Or the Immigration Restriction Act 1901 – White Australia Policy

Or the Aborigines Protection Act 1909 which endorsed, amongst other Human Rights Violations, the trauma of the Stolen Generation.

Or the incarceration, without charge, by the Chinese government of people who are outspoken against the Party Line.

I've spoken of how I take the consequences of my actions at work very seriously, acknowledging the potential trauma that sending someone off into the beyond can generate, and the flow on effect for many realms of their life. And the lives of family and friends. I always consider what are the alternative options, when making choices. Regardless of whether what I see in front of me 'ticks the boxes' or not.

Whose needs are being met

Underpinning all of this is, alongside the legal parameters, at the forefront of my decision making, is the concept of 'whose needs are being met'.

And this involves consideration of risk, as well as moral and ethical factors.

I have mentioned in the past the 'Thumbs up/Thumbs down' section in the local paper as being like the social barometer of the area. And how the behaviours valued by the wider community are founded on principles of trust, honesty and respect, to name a few.

In my earlier submission I also spoke of the Australian Public Service document which the Office of the Merit Protection Commissioner released, titled Ethical Decision Making. https://www.apsc.gov.au/ethical-decision-making

And it's all of this that I expect the Panel are very mindful of as they consider implications of their decision and recommendations.

IAC PANEL HEARING PROCESS

Parameters

In the context that the Inquiry and Advisory Committee are tasked with assessing the information provided, we need to acknowledge the intrinsic limitations within that Terms of Reference, and the limitations of the Panel from a Legal perspective.

During the IAC Panel Hearing process, there are no 'rules of evidence', no absolute need to 'tell the truth, the whole truth and nothing but the truth'. And no legal consequences for providing deliberately misleading information. This is something Kalbar understand and maximise to their advantage.

They could, and do, advise the IAC of their grand schemes, using heady and overarching comments, such as 'considering best practise', or 'considered in the detailed design phase', when responding to gaps and irregularities in the EES assessments. And continue to present reactive documents, such as the laughable Technical Note 40. More on that later.

There is absolutely no guarantee what they put to paper will materialise in reality. The precedent has not been set by Kalbar that demonstrates they are honest and trustworthy. And they've been at this project, lurking around the district, for around 7 years now. One submitter (488) quite rightly described Kalbar as "not an authentic part of the community".

Kalbar have become quite affronted during the hearings when individual Submitters have passed negative comments around Kalbars actions or inactions. Suggestions by Kalbar that they seek to "set the record straight" (01 July 21) by challenging Submitters claims (regarding consultation) seems a pathetic attempt to gain credibility in front of the Panel, when this credibility has long evaporated in the eyes of most. Indeed, this tactic could readily be perceived by some as Intimidation.

THE PROJECT ITSELF

Ever changing

And so, when we're talking of the Project, what exactly are we talking of?

It is abundantly clear that the project continues to mutate from one version to another. I've listened to many of the witnesses, paid for by Kalbar, and along the way a 10 ha plant and seed nursery has been added to the proposed design, and to be included on the project site. Exactly where, remains a mystery as it's not on maps provided to date.

Then there's the proposals to extend the project area to reflect more of the retention licence, and further, those untested centrifuges. They weren't in the published EES, despite being tested in 2018, but are now touted as the panacea of Kalbars water calculation woes.

Let's not forget the addition of a brochure (TD 355) for a dust suppressant product, including a report from last century - 1988 - of its use (TD 357), and more recently, the announcement of the Fingerboards Pastoral Company, an off shoot of Kalbar's many companies, along with the extension of the borefield. And who knows what might follow.

Expanding boundaries

Of particular concern is that extension to the project area and bore field area are not part of the documents in the EES. And the implications for Compulsory Acquisition of Land, which negates any assurances stated in TD18.

The back of the envelope

During the witness statements, I've heard a couple of times reference to 'back of the envelope calculations' from Kalbar witnesses, and it feels as though that 'rough outline' approach extends to the project as a whole. Kalbar appear to be constructing the project, in its hypothetical format, 'on the fly'. TN40 (TD 542) is a classic example, which I'll discuss later in this submission.

If I was to front any government dept seeking approval to build a house, and I had on hand a selection of glossy brochure from various home builders, a photo of the desirable parcel of land (most of which I didn't actually own) and a sketched map of where the drive way and sheds might go for the next few years, before I change their position, I'd be shown the door. And told, in no uncertain terms, that what I presented isn't up to scratch.

Rubbish in, Rubbish out

The calibre of evidence provided in the EES reflects this analogy, such are the gaps and deficits in basic science and standard practise. We've heard from numerous scientists how the core principles of robust scientific examination have been ignored, with limited sampling, non functioning equipment and poor modelling parameters.

"Rubbish in, Rubbish out" has been mentioned more than once.

There can be no confidence that calculations provided are accurate. And, in fact, basic maths in the EES has been incorrect. This has included the likes of pumping rates. Has no-one, apart from concerned members of the public, actually checked that the numbers add up?

Compliance

And did the Panel Members note the 'Certificate of Compliance' in TD113, TN006 Apx 11D didn't have readable headings, more like 'Gobbledegook', and wasn't signed. Hardly inspiring confidence! I have attached that page to this submission, for your information.

Why would the heading be like this? Has the document been adopted or altered from something else, to be included in the final document? Or is this a contemptuous sneer by Kalbar at due process and expected Standards?

EES PROCESS

Costs to date

Kalbar have driven the EES process, at what they claim as a \$50 million cost to date. (TD 358, 15, pg 5) Without providing any evidence of this figure actually being true. And Kalbar seem to suggest that they are 'owed' a mining licence as they've spent this much so far. This sense of Entitlement is gobsmacking. And absolutely contrary to the values of the community.

If the \$50 million is indeed correct, looking at the calibre of the reports, it doesn't seem value for money.

Could it be that some of those funds have been used to influence Executives at the Agencies, or be payment for a 'non disclosure' agreements?

Pandemic release

Kalbar have collated selective data and chosen when to release the EES for public comment. That being late in 2020, and in the throes of a pandemic, with government restrictions in place, limiting community gatherings.

The timing of the release also fails to reflect behaviours which the community value, and seems strategic, more than anything else. How could those who oppose the project, or have questions to Kalbar, meet in numbers when the government directive states otherwise?

Regardless, the collated information is, as has been often described by witnesses at the hearing, 'suboptimal'.

Dept of Transport, DWELP, Southern Rural Water, The Australia Institute and EPA to name a few, all commented on inadequacies for decision making.

Prior to the EES release, I emailed Kalbar some three weeks beforehand to seek clarification of the scheduled release date. They declined to provide this, and even the day before release, were evasive when directly asked, face to face.

Fees and charges

Kalbars initial advertisement in the local paper stated that there would be, from memory, a fee of \$270 for a full hard copy of the EES documents. I recall thinking at the time how such a fee would disadvantage so many people, and how unreasonable that seemed. There were other fee structures for copies in digital format.

This is despite it being clear, later when I reviewed the Scoping Requirements, that there should be no charge to the public at all.

Thumbs Up/Thumbs Down

I spoke of the community valuing honesty, respect and trust. Kalbars behaviour doesn't align with this.

The perpetual nature of this underhanded and devious behaviour from Kalbar has long extinguished any whiff of Social Licence.

INFORMATION REQUESTS AND INADEQUACIES

Hidden information

My attempts to obtain information, on a range of issues, during the EES process was 'like dragging teeth'. With information inadequate or drip fed. All the while, the clock was ticking for the closing date for submissions. And I wasn't alone with this predicament.

In my supplementary centrifuge submission, I provided evidence of these difficulties – and what seems blatant, outright untruths. Alfa Laval seemed very clear that they had provided detailed and project specific information about the centrifuges to Kalbar, but Kalbar were claiming that level of detail "is closer to a detailed design, which is a stage we are not yet at...." (13 Mar 21)

And, rudely, contemptuously, Kalbar never put any individuals name to their email replies. Even when I asked who was replying. Online enquiries to and from any business generally always have a persons name attached. Whether I'm returning an online purchase or logging a job with my Telco.

Kalbars claims of community engagement fizzle as their behaviour certainly doesn't reflect their touted policies.

https://www.fingerboardsproject.com.au/community-engagement/our-commitment

Terms of Engagement

What I found surprising was that despite the Terms of Engagement between Coffey and Kalbar being absent, and this fact noted by several submitters – and yes, I've read most of the public submission documents – the Panel didn't request this much earlier. Mr Vaughans documents (TD 325) around ANESCO seemed to bring this to the fore.

Given the limitations of the Panel, from a legal perspective, I would have thought this information was essential, to assist all involved to interpret or understand what is being presented and discussed. And what has been omitted. The disclaimers at the start of each EES report raised suspicions, and from that, questions around integrity of the information.

I understand The Panel, as at the end of May 2021, experienced barriers to getting a straight answer from Kalbar when asking for the Terms of Engagement with Coffey. What was received was a 'sales pitch' (TD 375). Which is different to the Agreement Terms of TD 343.

Again, neither of these documents provide the necessary detail around what Kalbar funded each Consultant to provide, or to omit. Kalbar was clear to the Panel, when directly asked, that they had no intention of providing the specific information requested.

It feels as though the Panel, like the public, has given up on any chance of Kalbar presenting the document asked for. It seems that Kalbar knew what was requested, but never had any intention of providing it.

Timelines for information not met

I was astounded that 'Request for Information' documents, tabled prior to the Panel Hearing commencing, and with a timeline for submission by Kalbar to the Panel, weren't available for public viewing when expected. Some were considerably late and incomplete. It seems arrogant and unprofessional, and reflects their lack of credibility.

And I understand The Panel continueded to wait (as at 07 June 21) for information to be provided by Kalbar. (TD401)

It is therefore incredibly disappointing (but probably not surprising) that the Panel appears to have been subjected, by Kalbar, to the type of delaying and obscuring tactics that the public have experienced.

Kalbar seem to be contemptuous in their attitude, and there's no obvious consequences to their behaviour, which could be readily be considered as arrogant, entitled and dismissive.

I do wonder if Kalbar scorn all of us, and that includes Panel members, taking us as for gullible idiots. Being both powerless to demand, and not worthy of, any respect.

How is this tolerable or tolerated?

How does it align with the principles of social justice and the Panel Hearing process.

Whose needs are being met?

The narrow focus and condensed information

We have Kalbar providing information which is fairly limited, especially when condensed to specific data. And particularly considering the breadth of the project, including its known and unknown implications.

The Panel and the Public are presented with an extraordinarily suboptimal situation.

Whose needs are being met?

Befitting the 'sense of entitlement' which seems to underpin this project, Kalbar expect several government departments to give the go-ahead based on the equivalent of 'brochures and mud maps'. There is no evidence of a truthful, cohesive and comprehensive overview of the proposals implications, in a transparent manner, that I and many others can find.

There are just so many gaps and mis representations, shaped by Kalbar to minimise perceptions of negative impacts, that in the Big Picture, the EES has no real credibility.

How can the Panel make a decision, grounded in valid information and data, and is balanced, based on this ad hoc, incomplete, untested information.

Uncertainty

Kalbar (TD 358, 40, pg 13) discusses the issue of uncertainty, outlining "that it is not uncommon for there to be a degree of uncertainty in environmental impact statements".

Which may well be the case, but with this project, we're not talking about what brand teabags might be preferred by the workers. Or whether there will be the need for a prayer room for any religiously devout staff. Or which business might provide the best price for the bulk purchase of personal protection equipment.

We are talking about vital and foundational information that is at the core of this project's assessment, and as such, that information should be truthful, comprehensive and coherent.

Informed decision making

And, as identified by Kalbar (TD 358,40, pg 13) "... the fundamental question is whether there is sufficient information to make an informed judgment on the nature of those impacts and the capacity to manage them."

If informed judgement is (per the English Collins Dictionary) "possessing reliable information on a particular subject", then I assert there is not sufficient reliable information. Or a consistent plan that remains 'on the table' in its final form, for the IAC to make an informed decision.

Particularly given the frequent changes, much of which hasn't been adequately or actually assessed in the EES. The very document which is meant to be foundational for the project.

What's to say the TSF, which was exchanged for the centrifuge option, doesn't come back to haunt us all, thanks to a variation to the work plan?

Or that Kalbar won't embrace the Fennings Railway siding option. The Government has given \$700,000 for the Fenning Intermodal Freight Terminal, with a two stage approach to its development. The aim being to "provide better linkages to Melbourne and the rest of the state for Gippsland business". (22 June 21) https://www.janegarrett.org.au/media-releases/future-in-freight-for-fenning-timbers/

An administrative change to the workplan would be required. Nothing more.

And from there, trucks bring the ore to Bairnsdale.

Equally, how can the public feel respected by the proponent when the project, as outlined in the EES, has changed so quickly since January. This doesn't reflect an 'honest and upfront' approach by Kalbar.

With consideration of the quality, quantity and format of information provided by Kalbar, whose needs are being met?

Kalbar provided data as the basis of assumptions

The water balance is just one of many examples where Kalbar witnesses failed to provide clarity. I watched this presentation, with the witness commenting "I had hoped this wouldn't happen, and we'd be pointing fingers at each other" when asked about the source of data.

East Gippsland Shire Council noted this. " ...Mr Muller was unable to do more than point to the proponent itself as the source of key data, with an indication that Mr Georgiou had suggested the data seemed appropriate. Mr Georgiou, in turn, pointed back to the proponent" TD 407, sec 141 sec b pg 38

And this example underpins many of the assumptions made by witnesses for Kalbar – they utilised data provided by Kalbar without undertaking their own review of its credibility. And the reliance between Kalbar witnesses on each others information allows distortion, data gaps and misrepresentations to flourish.

And we still don't know those Terms of Engagement (as discussed above)

Awaiting the detailed design phase

Being advised that issues 'will be considered in the detailed design phase' is just extraordinary, and fails to align with what is expected, by the impacted community, from this whole process.

It sounds an awful lot like 'make it us as we go along', sprinkled with some empty promises, and 'throw away lines'. All of which Kalbar present with the aim of getting the project approved.

As my time is limited today, and as I would expect the Panel have also been critiquing the information provided, I will move on.

CHAIN OF CUSTODY

Contemporary practise indicates that a Chain of Custody (COC) is required to be lodged and recorded when samples are taken for laboratory testing.

"In practice, a chain of custody is a chronological paper trail documenting when, how, and by whom individual items of physical or electronic evidence—such as cell phone logs—were collected, handled, analysed, or otherwise controlled during an investigation." (Longley, 2019)

Noise data from Marshall Day Acoustics

With regards to noise monitoring, for example, there was no Chain of Custody for the electronic data between the monitors and the laboratory interpretation. With monitors, the considerable variance between the manufacturers indictors of battery life versus touted time of 'continuous monitoring' by consultants, was discussed in my earlier submission.

To recap, the battery life of the NL-31 unit is, according to manufacturers instructions, 10-27 hours unless connected to an AC outlet. There was no known AC outlet 1 km up Lucas Creek, in amongst the vegetation. Recording of this equipment was reported in the EES as occurring over two timeframes for a continuous 12-14 days. The product manual cautions against exposure to dust, moisture or humidity. Apx F2, pg 118 notes "weather during the survey was affected by frequent high winds and rain".

https://www.noisemeasurement.com.au/downloads/NL-21.pdf

How did this all translate to practical, in the field, intervention? Battery powered units, in the wind and rain, over 12-14 days, and still a wiggly graph is produced? Is this an example of 'fit for purpose' data being provided to the EES report?

Whose needs are being met?

Soil samples

Similarly, with the ore samples taken, the COC is conspicuously absent. The Alfa Laval testing for centrifuge slimes could not identify the "age and origin of the sample". And yet, from this, a range of extrapolations occur.

The large ore sample, taken from multiple bore holes, has no reference or evidence of COC and thus casts doubt over the results.

And speaking of results, some samples were actually dated as 'tested' *before* the date they were logged in at the Lab, as outlined in the very detailed presentation by Joanne Eastman on 01 July.

Envirolab 217289B. Samples listed as received on 15 Nov 2018 and tested on 13 Nov 2018. (slide 40)

Whose needs are being met with this sort of behaviour?

UNMET SCOPING REQUIREMENTS

Detailed and articulated by the Minister, and published in 2018, the Scoping Guidelines provide a framework of expectations and outcomes.

How can the IAC have confidence that they are able to fulfil their duties and responsibilities, if so many of the Scoping Requirements haven't actually been addressed?

Kalbar would have us think (TS 358 44 pg 14) 'near enough is good enough', and describes Scoping requirements "do not require a proponent to investigate every issue as far as possible or even as far as practicable."

Not solar panels in a sheep paddock

But this is not a 110 ha solar farm in a disused sheep paddock, out the back of Traralgon, which will actually lower greenhouse gas emissions. https://fraserssolar.com.au/the-project/

To the side, a witness for Kalbar stated that the land unavailable for agricultural use during the mining process would be no different than land lost for a solar farm. Which is an interesting and rather inaccurate analogy. Solar farms don't involve massive holes in the ground, subsidence and toxic dust, to name a few variances. Or alter groundwater supplies. Or destroy neighbouring industries and businesses.

This is a highly technically challenging venture, with land that's elevated on a plateau, interspersed by steep gullies, unique micro climes, and supporting flora and fauna and supported by complex groundwater systems.

Undoubtedly, this venture will impact horticulture, agriculture, water, tourism, aboriginal heritage, native vegetation, fauna, air quality, the liveability of the area and so much more.

And, as such, the investigations of issues should have been very, very thorough. The EES provided by Kalbar fails.

So 'whose needs are being met' if this is approved?

MRSD ACT

The purpose of the MRSD Act provided at s 1 is as follows: "The purpose of this Act is to encourage mineral exploration and economically viable mining and extractive industries which make the best use of, and extract the value from, resources in a way that is compatible with the economic, social and environmental objectives of the State."

This is considered by Kalbar to underpin their project.

"Accordingly, the merits of the Project principally, though not solely, fall for consideration pursuant to the MRSD Act. " TD 358 sec 6, page 3

Broader considerations

Whilst a succinct paragraph, the purpose of the Act brings with it a much broader range of considerations. Most importantly of all, the importance of compatibility with economic, social and environmental objectives of the State.

Intergenerational equality is part of this. And this also involves the Climate Change Act 2017, and other legislation to protect our future generations.

The landmark decision (07 July 21) by the Federal Court of Australia has ruled the Environment Minister has a legal duty of care to safeguard Australian children and teenagers, as well as the environment, from the effects of climate change. The implications for this with the Fingerboards project can't be ignored. https://www.theguardian.com/environment/2021/jul/08/australian-government-must-protect-young-people-from-climate-crisis-harm-court-declares

It is not about 'Mining, regardless of the cost'. We've heard from Ms Tracey Anton (TD 470-472) around the 'wiggle room' that the MRSD Act provides for Miners to blatantly override the legal rights and options open to others, including impacted landholders.

Kalbars recommends that the project be approved, and this is underpinned by their narrow focus on specific legislation. But in doing so, Kalbar omit to give due consideration to a broad range of other parameters. Including social impacts, which were absent from reports in the EES.

Social impacts ignored

This, as discussed by EGSC Counsel, is a significant anomaly. A broad array of previous EES's were quoted as having undertaken a Social Impacts study, including the relatively modest (compared to the Fingerboards) project at Bastion Point, Mallacoota, which involved boat ramp options. At that time, the EGSC were the proponent.

https://www.planning.vic.gov.au/ data/assets/pdf file/0028/119485/Bastion
Point EES Inquiry Report.pdf

Could it be that Kalbar chose to ignore a thorough assessment, given the level of objection for the project within the community? It's in the scoping requirements so should have been done. Did Kalbar hope the omission wouldn't be noted?

Whose needs are being met by the omission?

Sustainable development

The MRSD Act embodies 'sustainable development'. Kalbar regard the project area as not being "high quality agricultural land.", (TD 358 sec 35, pg 12) which is in stark contrast to the experience of those who currently farm that land, and derive income from it. And suggestions of returning the land to pre mining condition is an objective which is frequently commented upon. Whilst Kalbar acknowledge their 'legal obligation" (TD 358, sec 36, pg 12) to undertake this action, the community has no trust in Kalbar.

Subsidence and the toxic legacy

The science suggests there will be subsidence, and the presence of flocculent under anaerobic conditions is extremely problematic. Along with groundwater flow during and after mining. The permanent loss of a gravel aquifer, that has sustained the Mitchell River for millennia, is inexcusable. It has proven to be a saviour for many downstream users, including irrigators, during times of dry.

These factors undermine the notion of the project providing any 'sustainability' for the Agricultural (and other) industries. Hence, the aims of the MRSD Act are unable to be met.

There remains a myriad of implications which are unknown, and in amongst all this, The Precautionary Principle hasn't been reflected in Kalbars project.

WORK PLANS AND OVERSIGHT CAPACITY

It is well known that Work Plans have their own range of issues. Whilst theory is all well and good, in practice, Work Plans, by their very nature, can be written in such a way as to benefit the miner only.

Work Plans only work if they're workable, and that includes the enforcing of regulations, and the effective oversight by Agencies.

In this EES process, particularly since the early 2021, there have been several changes to draft plans.

Changes and more changes

As of up to the end of May 2021 only, there's been changes to Documents with amended or updated drafts 197, 197a, 198, 198a, 199, 200, 201, 202, 215, 344 (Mining Licence Application). And all the Technical Notes.

Documents 43, 43a, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 145, 146, 147, 148, 149. 195, 216, 222, 256, 271, 302, 327, 334, 347, 348, 390, 393, 402, 436 This doesn't include the changes to the roads Documents 44 – 59

ERR

Kalbar have spoken of the expectations that having the mining licence will involve oversight by regulatory bodies.

But we know Earth Resources Regulation (ERR) are ineffective. This has been relentlessly demonstrated.

The Auditor Generals report of Aug 2020, also mentioned in my submission, is crystal clear in their findings – there's a lack of resources, including staffing, and an absolute conflict of interest with the regulatory structures embedded within in the mining industry, rendering any level of independence in role obsolete.

I note the IAC (TD 439) asked ERR for information around their resources and such. With regards to their response, I would ask the Panel to be mindful of projected outcomes and 'on the ground' reality. What benefit is it to the ERR to admit, on a publicly available document, that they are unable to be independent and effective? What would be the consequences if they were open and transparent? Whose needs were being met when their response was written?

TD497 fails to provide clarity and confidence that ERR can address risks in a timely or effective manner. ERR remains under the auspice of the mining companies, which doesn't change that conflict of interest issue one iota.

Kalbar funded 'independent oversight' option

Kalbar have concocted, during the Hearings, (TD542) TN40 in which they firstly question the motives behind the public in raising these concerns, before suggesting "the Proponent considers an appropriate way to provide additional certainty and confidence in relation to future approvals and oversights is by the establishment of an Independent Technical Reviewer (ITR) to be funded by the Proponent". (italics added)

Again, this fails the notion of Independence, in much the same way the paid experts who provided the EES reports lack independence.

Whose needs are being met by this TN40?

Yet again, I firmly assert that the IAC have no alternative but to reject the Mine proposal.

This project fails the objectives of the Mineral Resources Sustainable Development (MRSD) Act 1990. Which was last amended 01 May 21.

Specifically Part 1, Sections 2 and 2A., around expected impacts.

https://www.legislation.vic.gov.au/in-force/acts/mineral-resources-sustainable-development-act-1990/124

The Costerfield Project and others

Mr Simon Perrins presentation (TD 386 20 May 21) illustrated Regulatory Failure at a sustained and systematic level across a range of Regulatory Bodies. And this must be taken as seriously. His example of as the ongoing spraying of toxic water at the Costerfield project, Brunswick Pit, which has resulted in heightened lead levels in the local population is frightening. And doesn't align with the works ERR cite as effective in the response (above)

I was aghast when Mr Perrins mentioned that meetings to discuss the pollution simply ceased being held, as a means of departmental resolution of the issue.

To consider providing Kalbar with 'the keys to the kingdom', based on a belief around efficient monitoring of mining activities by ERR and others (including the EPA) is foolhardy and negligent.

And whose needs would be met?

THE PRECAUTIONARY PRINCIPLE

Much has been written about the Precautionary Principle, and for good reason.

The take home message is around reversing the burden of proof. Now, it is for the person or company proposing the action to prove that action is not harmful.

Kalbar are unable to do this.

They tout 'Adaptive Management', without evidence of solid definition or efficiency. And this project is new for Kalbar, they haven't mined as a company before.

The MRSD Act speaks of the importance of 'sustainable development', and the Precautionary Principle aligns with this.

"The precautionary principle is accepted as a fundamental tool to promote sustainable development and has an important function at both international and national levels.

It provides for action to avert risks of serious or irreversible harm to the environment or human health in the absence of scientific certainty about that harm, and offers the 'authority to take public policy decisions covering environmental protection in the face of uncertainty'.

Where there is no uncertainty in the calculation of risks, there is no justification for the employment of the precautionary principle.

Thus, scientific uncertainty is at the core of the precautionary principle."

https://journals.sagepub.com/doi/full/10.1177/1461452919890283

Kalbar have given little to no evidence that this principle is embedded within their risk assessments.

But we have heard, from witnesses, that considerable concerns around scientific uncertainty exists.

It is therefore of significant importance the IAC consider the implications and calibre of the data (presented and absent) when considering the project, and how the Precautionary Principle frames decision making.

Should this Principle be ignored, whose needs are being met?

FINANCES AND PROMISES

My earlier submission outlines concern around questionable financial activities within the suite of companies that are Kalbar. Specifically, the creative and retrospective accounting practises in the latter part of 2020 such as the issuing of shares (without money changing hands) to increase company value by \$5 million. And the submission of documents to change (at that time) overseas control of the company from 94% to 88%

Taxes and Royalties

Kalbar describe the financial windfall to government as an enticing outcome, citing millions in taxes and royalties to be paid to Government. As any CEO of a major corporation will advise, companies gain wealth by having clever people on staff, including accountants who are able to maximise opportunities for reducing the company taxation load, and to adjust resources and corporate entities to support this process.

And this practise is well recognised and known by the ATO. Indeed, in their most recent Corporate Tax Transparency report, they cited around one in every three companies have "once again failed to pay a cent of tax". And they note that "the increase was primarily driven by the mining, energy and water segment.."

https://www.abc.net.au/news/2019-12-12/ato-corporate-tax-transparency-data-companies-no-tax-paid/11789048?nw=0

https://www.ato.gov.au/Business/Large-business/In-detail/Taxtransparency/Corporate-tax-transparency-report-for-the-2018-19-incomeyear/

To give any credence to the claims of Kalbar that they are solid corporate citizens, who can be relied on to pay what's due, is naïve in the extreme.

Within the 6 policies online at the Kalbar website, none reference corporate governance and meeting legal obligations to pay their dues. It is important to remember Kalbars roots run deep within the landscape of Investment Companies.

As outlined in submission 473, Kalbar have already received a \$40,000 Victorian Government 'Community Advisory', and there's a high potential for them to seek further funding from the taxpayer. Submitter 335 cites the 2016 Kalbar financial report, which states it had received a Federal Government grant of \$660,000 to study the viability of using the mine void as a water storage for local irrigators, and noted that "if the project provides feasible, it will have access to \$2 billion of Federal Government funding".

But, back to the promised windfall for the government.

I'm an optimist by nature, inclined to see the good in all. Time spent observing Kalbar in action, and identifying their approach to the project, has developed in me a certain level of scepticism.

Fingerboards Pastoral Company

And so, in regards to the taxation issue, I can't help but wonder if the latest incarnation of the Kalbar suite of companies, Fingerboards Pastoral Company, is a means of tax write off. They describe in the local newspaper, dated Wed 19 May 21, how according to Mr Jozsef Patarica, they plan for "farming activities (that) would focus on breeding and raising sheep and cattle, and potentially developing cropping and mixed farming in time". He spoke of the noble aim of "look(ing) after the land, and we don't want to see it degenerate or become overtaken by feral animals and weeds".

I went to a Seminar, some years back, where an esteemed Old Age Psychiatrist said "if you want to see a Yurt, go to Mongolia. If you want to see a depressed person, go to a Nursing home".

I would say to those studying Agriculture.. If you want to see African Love Grass, go to where Kalbar owns land".

I have been reliably informed that African Love Grass has been present on their properties for years and years, and by the accepted wisdom of local Landholders, endorsed by Science, it has neither been adequately or effectively addressed.

African Love Grass is so problematic that local agricultural groups hold regular forums to discuss its eradication. I was also confidently informed that Kalbar ran the slasher through the African Love Grass on their property, just prior to the IAC tour of the proposed mine site.

It is well known that any physical disturbance of African lovegrass, such as slashing and ploughing, can promote spread and reinfestation.

https://www.glenrac.org.au/admin/files/resources/1325643597 african love grass fact sheet.pdf

So, there's a poor precedent already for Kalbar taking care of the land they current own.

Hence, how can government and the community have any confidence that this latest business, Fingerboards Pastoral Company, is anything more than perhaps a front to minimise tax obligations?

Financial statements and operating losses

And whilst we're on the subject of finances, I would expect the IAC has read the last few years of financial reports from Kalbar, as tabled to Australian Securities and Investment Commission. I have. A review of their accounts indicates successive operating loss over a number of years. Last financial year it was in the realms of \$6 million. \$6,425,297 to be exact.

Appians influence

We know there are concerns with Appian, who are backing Kalbar by providing their much needed funding. The suggestions are of impropriety and possible interference with ANESCO's submitted reports for the EES Panel Hearing. (TD 342 and TD 343), and this requires serious attention.

It is unfortunate that the IAC's terms of reference don't extend to being able to investigate this further.

Loss making

There have been concerns raised that this venture is a loss making exercise from the start. We've heard from Kalbar of the projected sale cost of the ore, and the expected mining costs. The sale of ore is touted to attract between \$27 - \$33 per tonne, with costs around \$13.50 a tonne.

Whilst we have no meaningful and specific evidence or calculations to support this projection, and I'm not an accountant or economist, I do know that the very fine local apples are around \$4 per kg, which convert to \$4000 a tonne. This seems better value and a greater return on investment. And a greater chance of taxation to the government.

On selling options

There's the very real risk that the mine license will be on-sold, reaping the Shareholders and Directors a significant windfall. It's mentioned as an option in their ASIC's report, so is 'on the table', if not at the forefront as yet. As is the options around mining the Mossiface deposit. Something that hasn't been explored during the EES or Panel Hearing.

BA Economics report

I listened to Mr Campbell of The Australia Institute discuss with passion - and considerable incredulousness - the BA Economics report. One can't help but wonder, in this case, if (pardon my language) 'BA' stands for 'Bugger All'.

He was abundantly clear that the report was contrary to what is accepted as contemporary and best practise. It lacked both the basic and then deeper investigations in to the economic viability of the project.

I know the panel members have also listened to what Mr Campbell had to say. But, there will be many who may not have. And as this will be a publicly available document, I'm going to recount his analysis, in an abbreviated form.

He describes on 07 May 21 (138:58) "the economic assessment of this project that's been submitted by BA Economics is, in a lot of ways, I think an extraordinary document.

I think if anyone ever writes the history of economic assessment in major project planning processes in Australia... I think this document would certainly be in there. ... I've been through the economic assessments of a lot of mining projects and... economic assessment is subjective.

It's a social science and you expect to have some differences of opinion between economists regarding assumptions and data that might be appropriate to go into assessment. And I've certainly had countless disagreements with other economists around what commodities prices might be relevant, (to) what discount rates might be best used, whether or not operating costs seem realistic... all of those things.

I think it's right, and unavoidable, that economists can have differences on opinion. But ... my big take out from this document is its incredible lack of transparency.

And some of the really unorthodox methods through which the calculations of economic benefit are obtained.

We're not talking about... a minor disagreement about what the future of the zircon market looks like. Indeed, the zircon market isn't even mentioned in the BA Economics ..."

He goes on to describe "they don't even mention what commodity prices they're using in this assessment. They don't mention what the operating costs might be, they don't talk about what else is going on in the relevant commodity markets. Whether or not there's a huge boom in demand coming, whether there's increased supply coming online .. that discussion is fundamental to the economics of any major project, any resource project.

It's just not there".

He continues to express concern and the limitations of the document (142:23) "This is really a document that isn't designed to give .. decision makers .. a set of agreed facts. It ... serves to hide and ... misguide decision makers as much as it does inform them ..

This assessment overstates economic benefits of the project and understates the costs, and really leaves decision makers with very little idea of what benefits might be achieved" (end of quotes)

Does the format of this BA Economics report illustrate honesty, trust and respect (for processes and due diligence)?

Certainly, it brings questions to the fore around why would Kalbar and BA Economics seek to provide information in such a way.

Kalbar, in their response (TD 358, 86, pg 24), fail to focus on the unorthodox nature of the report and its' lack of transparency, preferring to 'cherry pick' a select comment to justify the touted and unsubstantiated economic benefits.

"While Mr Campbell professed serious scepticism about certain figures used in the BAEconomics economic assessment, he did not give evidence that the Project would not have positive economic effects. As he observed, the spending of significant sums of money within East Gippsland would inevitably have some positive effect on the local economy. He also appeared to concede that the payment of royalties would provide economic benefits at a State and national level." (end of quote)

There was no qualification by Kalbar around the term 'significant', and this seems an adjective, inserted by them, for impact. And there's also a subjective assessment in the use of 'appeared to concede'.

The problem with China

International markets can lack assurances. We know from the recent experience with China and the Trade War, that the effects of 'stonewalling' by a trade partner can be very problematic. Late Nov 2020, tonnes of live Lobster bound for the Chinese market was 'stuck in customs'. This market is worth about \$26 million, with 95% of lobster exported to China. (03 Nov 2020, The Age, pg 6).

And it just wasn't crustaceans. The sanctions extended to Barley, Beef, Lamb, Wine, Cotton, Timber, Coal and more.

Only this month, "A Chinese official has openly declared that Beijing has singled out Australia for economic punishment, saying the federal government cannot profit from China while "smearing" it ... Mr Zhao also declared that Australia was being punished because it was trying to attack China on behalf of the United States, and suggested that American farmers were the big winners from Chinese tariffs on Australian goods."

https://www.abc.net.au/news/2021-07-07/australia-china-trade-tensions-official-economic-punishment/100273964

Kalbar have signed an Agreement with Chinalco, a Chinese State owned entity, promoting a partnership. Chinalco's corporate antics should be considered as part of the Big Picture.

The plans for sale of this product to China comes with no assurances. And thus, the extremely high risk of the project being abandoned.

https://www.abc.net.au/news/2020-12-17/australian-trade-tension-sanctions-china-growing-commodities/12984218

That's not evident in the BA Economics report.

To the side, let's not forget China's environmental record is appalling and by planning to send material there for processing, Australia is complicit in that ongoing destruction of their landscape, and endorsing substandard workplace conditions for the employees. If indeed China will accept these materials now.

Whose needs are being met?

Nuclear weapons

And speaking of which, this also includes Kalbar's apparent dismissal of any concerns for the outcome of the radioactive material in the ore, once it's in China. Kalbar stated early on in the Panel Hearing process, when responding to concerns around material being used for nuclear weapons, that there would be an "understanding" between the Kalbar and China that the materials wouldn't be used for these purposes. How can this be assured? What a ridiculous comment by Kalbar. Short sighted and ignorant.

Again only this month, there's alarming reports of China stockpiling nuclear weapons.

"China is building more than 100 missile silos in a remote desert, analysis of satellite imagery suggests.

US researchers, from the James Martin Centre for Non proliferation Studies at the Middlebury Institute of International Studies, said they discovered the site while studying satellite photos.

The study's findings, first reported by the Washington Post, identified 119 missile silos, likely to hold intercontinental ballistic missiles, being built in the desert of Gansu province We believe China is expanding its nuclear forces in part to maintain a deterrent that can survive a US first strike in sufficient numbers to defeat US missile defences," Dr Lewis said."

https://www.9news.com.au/world/china-nuclear-silos-found-in-remote-desert-after-analysis-of-satellite-images/de279e68-8a41-4896-886b-a1b7dcaac203

So, whose needs are being met with this project?

EMPLOYMENT

Kalbar talk of employing 200 people at the mine site. Of them, 60 are documented (at this stage, anyway) to be Kalbar employees, and the rest, contractors.

Kalbar state these will be 'local', but as outlined in the Hearing of Fri 07 May, from Mr Rod Campbell of The Australia Institute, mining is a highly skilled area and, to quote the from 153:23 of the audio "this mine, like any mining project, will almost certainly try and recruit other people from within the mining industry, and with mining experience. So, the people who are going to work in this mine are not coming, ... to put it crudely, off the dole queue in Bairnsdale. They're almost certainly going to be coming from other mining projects, other civil engineering projects ..." (end of quote)

There has been no discussion in the Panel Hearings by Kalbar witnesses around the notion of FIFO workers, even though the Bairnsdale Aerodrome Master Plan identified the option of FIFO workers for the Fingerboards Mine being considered. (pg 14)

https://assets-global.websitefiles.com/5f10ce18aa01d050c26b7c5e/5fbc9b5ce71de0b76a8faffc bairnsdale airport masterplan.pdf When tasked, with considerable lead in time, with the fitting out the venue for the Panel hearings in Bairnsdale, Kalbar commented that it wouldn't be ready in time, due to heating issues. They chose to source heating from Melbourne and were awaiting that to be installed. As someone who has sat in the building for a few days, I attest that the heating available for the hearings is very ineffective.

Whilst this sourcing is hardly reflective of their policy for using local suppliers.

We know from past experience with Balmoral and other areas that the promised financial gains for the community don't eventuate or they're not sustained.

Again, whose needs are being met?

RISKS IDENTIFIED BY KALBAR

Throughout the EES there's been a consistent theme of Kalbar minimising risks and impacts. Indeed, they get to choose their own risk matrix(s) and from there, allocate inputs to each of their selected criteria. All without scientific or mathematic rigor, but certainly with a liberal sprinkling of subjective assessment.

Whose needs are being met by this?

The risk assessments themselves in the EES are extraordinarily difficult to read. 'Microscopic font' is a term that springs to mind.

When I asked a Kalbar staff member why this was so, their comment was around Kalbar staff being able to read the document on the computer screen, and they had not checked how that translated to a hard copy. Hardly 'best practise'.

Perpetuating data anomalies

A significant risk, that hasn't been discussed, is the risk that information provided by the proponent to consultants is not adequately fact checked

And that the perpetuating data, circulating between Kalbar expert witnesses, is considered fact, simply because it's repeated so often.

We've seen this with one expert relying on the works of another, or relying on data directly provided by Kalbar, and it not being questioned.

The Terms of Engagement would have been useful in respect to this.

DESENSITISATION AND SOLASTALGIA

I've listened to the Kalbar witnesses, whether that's live or in recorded format, and I am concerned that both the overt and subtle impacts on Life As We Know It, from the project, is being diluted.

This lends to Desensitisation and Disconnect from the lived landscape.

There's a real risk that this lived landscape may be lost in amongst slide show discussions about percentages of whatever data is being discussed, or the positioning of bores, for example. Wiggly lines, crosses or other indicators on maps represent features which actually have real form and function. And these features engage our senses. They are part of the fabric of the landscape, and serve a purpose, including being interconnected with other aspects of the landscape.

Solastalgia

This engagement of our senses – or connection – forms the basis of Solastalgia.

This deep connection was described by one submitter (894) "to touch the earth, feel the balm of nature in its endless forests, hills and lakes ..."

"Solastalgia is the distress that is produced by environmental change impacting on people while they are directly connected to their home environment ...; the sense of desolation people feel, consciously or unconsciously, when their home or land is <u>lost</u> to e.g. road building, dam projects, deforestation and so forth."

Albrecht (2019) defines the distress and negative emotional response experienced when we seek solace in a much loved place, which has been despoiled.

"Solastalgia refers to the pain or distress caused by the loss of a comforting place"

This is a worldwide phenomena, and transcends all cultures impacted by rapid, irreversible changes to the ecology and the environment.

https://journals.sagepub.com/doi/10.1080/10398560701701288

https://www.climatepsychologyalliance.org/handbook/484-what-is-solastalgia

If this project – against all wisdom and science - proceeds, the majestic landscape around The Fingerboards area won't ever, ever be the same again.

Regardless of the Kalbar marketing 'spin' around Rehabilitation being restorative.

'Lipstick on a Pig'

Now speaking of 'spin', how is their latest advert with the face painting, identifying mineral sands are used in this product?

Talk about 'Lipstick on a Pig'!

Decimating loss

Trees and vegetation 'lost' due to the project are, in fact, obliterated. Destroyed. Never to be seen again. This type of 'lost' is forever.

Irreplaceable, taking with it all the encompassing biological and symbiotic relationships within that habitat. You only have to stand beside a tree, and look closely, to see the Life that it supports. Whether that Life has legs or not.

This 'Lost' isn't like a set of keys, or your child's favourite toy dropped from the pram. Both of which you hope will turn up again. And soon, because it's annoying and inconvenient to be without them.

The loss of flaura, fauna and habitat is so much more.

Trees are not solo, static entities – they form part of a wide, interconnected and interdependent network, utilising fungus to communicate with other trees and vegetation. This is knowns as 'mutualistic symbiosis'. And this extraordinary process enables vegetation to flourish, and in doing so, a range of other mutually beneficial relationships are supported, such as bacteria, insects, birds, mammals and more.

I note TD591 they plan to use tube stock to replace the destroyed ancient Gum trees. The same trees that are currently hundreds of years old. Mr Lincoln Kern, Ecologist, was clear in his presentation about how this is beyond being grossly inadequate.

https://letstalkscience.ca/educational-resources/stem-in-context/talking-trees-how-do-trees-communicate

Ecocide

The vast numbers of trees facing removal is criminal. And could be considered as Ecocide. Is DWELP up on this concept?

"Ecocide is extensive loss, damage or destruction of ecosystems of a given territory(ies)... such that the peaceful enjoyment of the inhabitants has been or will be severely diminished."

https://www.stopecocide.earth/faqs-ecocide-the-law

The risk of benign or minimising language dulling the implications of the project is very real, and we all need to be mindful of this.

Let's not lose objectivity and be lulled by the language of Kalbar who seek to have witnesses agree with their perspective. "You would agree" or "it is correct to say ..." and other similar themes.

NAIDOC week advertisement

To the side, I find it offensive in the extreme that, regardless of Kalbars stated plan to destroy all known and unknown Aboriginal artefacts, and alter cultural heritage (such as Songlines), on 01 July 21 they put an advertisement in the local paper, (pg19) in the NAIDOC week supplement, "Kalbar Operations Celebrates NAIDOC week". Complete with image of a green, treed gully.

Whose needs are being met?

CLIMATE CHANGE AND ECOSYSTEMS

There was a time, not so long ago, when every time I opened the newspaper or looked online, Donald Trumps antics were being discussed. Thankfully, now we have something far more relevant for the media to focus on.

Climate Change.

When the Planet is so obviously faced with the loss of ecosystems at an unprecedented rate, how can this project be okay?

I mentioned options of purchasing Woolly Mammoths in my earlier submission, as they thaw from the Siberian tundra. And in the last few weeks, news of Canada's Heat Dome experience, with temperatures of 50 deg Celsius and hundreds of heat related deaths has demonstrated what lies ahead.

Gippsland, like the rest of the world, knows what Climate changes are.

The recent stormy downpour that impacted outer Melbourne and the Latrobe Valley is evidence of what Science has been saying for a while – weather events will become more intense.

You've heard other Submitters talk of East Gippsland 'dodging a bullet' as that East Coast Low weather didn't arrive here as expected.

Can the Panel imagine the impact on the landscape if that amount of wind and water had arrived whilst there was a massive mining operation underway? Unprecedented flooding, unstable pit walls and catastrophic erosion. Infrastructure destroyed. Lives at great risk, and an end to the foundational expectation of the proponent that mining would be 24/7, year round. Which may have rendered the venture unviable, the proponent walking away, with the Government (at all levels) and left an irreparable, gawd awful mess.

As they say in the classics, "just one Nuclear Bomb can ruin your whole day".

Patrick Suckling, Senior partner at the Climate Advisory and investment firm, Pollination, states "Climate change is the challenge of our generation. Unless the world successfully combats climate change, millions face destitution, displacement and death in ways now so extensively documented there is no argument. Ecosystems and a million animal and plant species are threatened" (Age Newspaper, 29 May 21 page 31)

Protecting species

This threat is acknowledged by Minister, Sussan Ley, in launching the 10 Year Threatened Species strategy (21 May 21, The Age, pg. 20) "the new strategy identifies both species and 'places', which an expanded focus on the protection of a more diverse range of species, including reptiles, amphibians, freshwater species, marine species and all of the incredibly unique environments in which they are found". This has been backed by \$57 million in Federal Government funding.

Undoubtedly, species are in a fraught situation and each plant and animal needs to be respected for what they contribute to nature.

Water health is essential, and that's been discussed by many submitters and witnesses. However, maintaining health waterways isn't achievalbe with this project.

The proposed Dilution Solution

Tony McAlister, in his witness statement on 06 May 20 for Kalbar, described (235:48) "as I said, dilution being the solution to pollution, but it is, the fact, in this particular case".

Greenhouse Gases

This project not only seeks to obliterate entire ecosystems, it will add to the Greenhouse Gas Emissions the Government is apparently bound by international agreement to reduce. Prime Minister, Scott Morrison, seems to have forgotten this, but that's a discussion for another day.

In January this year, a review of the Environment Protection and Biodiversity Conservation (EPBC) Act was presented to government. Graeme Samuel stated "to shy away from the fundamental reforms recommended by this review is to accept the continued decline of our iconic places and the extinction of our most threatened plants, animals and ecosystems" The rate of species loss has not slowed in the last 200 years as 'species have been wiped off the planet' (29 Jan 21, The Age, pg7)

WATER

A lot has been discussed around how this project relates to water access, water rights, and water levels in aquifers and rivers.

The Hydrologic cycle is what underpins water on the planet. However, the balance is being changed by global warming.

"Among the most serious Earth science and environmental policy issues confronting society are the potential changes in the Earth's water cycle due to climate change. The science community now generally agrees that the Earth's climate is undergoing changes in response to natural variability, including solar variability, and increasing concentrations of greenhouse gases and aerosols. Furthermore, agreement is widespread that these changes may profoundly affect atmospheric water vapor concentrations, clouds, precipitation patterns, and runoff and stream flow patterns."

https://earthobservatory.nasa.gov/features/Water

Removing vegetation exacerbates this issue, as photosynthesis is all about converting carbon dioxide in to oxygen.

offsets

This project is required by law to have 'offsets', but these are not yet formally secured.

Offsets are not re-plantings to counter destruction of vegetation, but maintenance of existing vegetation.

I could, hypothetically, offer my front yard as an offset. It's got some fine shrubs in it.

So, as offsets are all about existing vegetation, not new, there's a net loss of vegetation overall. And, as outlined by Mr Lincoln Kern some of these trees will be 500 years old. Thus, the offsets being a poor substitute for the original habitat.

AIR

Much has been said about the deadly impacts on air quality this project brings.

But its important to remember that oxygen is created through the interplay between oceans and vegetation. Oceans are warming, altering the balance, because of physics. This is not something we should be complacent about.

https://oceanservice.noaa.gov/facts/ocean-oxygen.html

This project also compromises air quality just because of physics. And the interplay between global factors.

This can't be ameliorated by adding vague comments to a Mitigation Register.

NOISE

I mentioned in my Centrifuge submission how ironic it was that the Barrister for Kalbar was disturbed by a garbage truck, passing whilst he was on video link for the initial Hearings session. Yet, the same legal firm have no qualms about promoting a project that will bring 24/7 noise to the region. I've discussed background noise and its effects in my earlier submissions.

Noise travels and impacts all facets of human and other life.

At home, between Christmas and New Year, I was hanging the washing and heard a jet above. What caught my attention was that travel by plane was curtailed due to covid, but yet, I could hear the jet humming high overhead. To be able to hear sounds from distance is not unusual.

I can hear the cheers from the local sports ground when a goal is kicked, or someone goes out in cricket. Both the early morning and late evening train leaving Bairnsdale station is audible from inside my home, a few km away.

And during the local Blood Moon Eclipse late May, as we stood on a ridge line many km's out of town, we could hear vehicles driving quite some distance away. Along with the sounds of nearby cattle, horses and birds.

I would encourage the IAC to put on your winter woollies and drive out to the Fingerboards area of an evening, or better still, after dark. Just keep an eye out for kangaroos and wombats on the road.

Listen to both the silence, and the natural landscape.

Lunch options

Nothing beats learning from visceral experience, and I thought of bringing in the blower vac from home, as it's very noisy. And using a basic phone app to demonstrate dB's. Knowing that 80dB is twice as loud as 70dB.

But then spied the generator out the back of the building here. I expect that no-one heads out that way for a quiet cuppa, or to make phone calls. I would encourage you to take lunch out there one day, and experience the constant droning noise. Then, consider the 'multiplier effect' that comes with mining and noise, adding a few bangs and crashes in to the mix. Perhaps the forklift driver from next door could drop some laden pallets down to 'add to the experience'.

Noise blocking

There's a paucity of meaningful information in the EES around the effects of noise on domestic and other animals. Large and small. If you've ever seen the intestines of a sheep hanging out, whilst the stunned animal stands there, you will have a good understanding of the horrific injuries that wild dogs can bring to a mob of sheep. And how important it is for those on the land to hear what's happening around them – for a range of different reasons.

It was particularly illustrative to me at work recently. We are located near the train station in Bairnsdale, and the lunchtime train was in, the diesel engine idling away. My colleague and I both walked from our work vehicle, which has a press start ignition, without realising the engine had not been turned off. We couldn't understand what the alarm sound pertained to. It wasn't until we got closer to the vehicle again, we realised that the trains engine noise was stopping us from hearing the cars motor running.

VIBRATION

Effects on biota have not been adequately addressed. Ants and other subterranean creatures will be impacted by the vibrations of moving equipment – whether that be mobile or fixed. The complex social and functional abilities of ants, in particular, has been the subject of many studies. Indeed, as far back as 1907.

https://www.jstor.org/stable/4062955?seq=1#metadata info tab contents

More recently, studies (2018) identify the impacts on ants, amongst a range of other creatures, and is clear in their conclusion.

"In anthropogenically modified environment, ants play major roles as predators and can even 'shape' the trophic structure of the local communities . Considering how much ants relies on vibrations for performing major social behaviours, we can express some concerns about the potential effects of noise pollution, i.e. artificial high levels of vibrations, on ant's physiology and/or behaviour, eventually leading to some cascades of negative effects."

https://www.oatext.com/impact-of-environmental-noise-on-insects-physiology-and-ethology-a-study-on-ants-as-models.php

Whilst it might be easy for those less connected with the land to dismiss the importance of ant, they, like worms and bacteria, are essential for soil to function. https://harvardforest.fas.harvard.edu/ants/ecological-importance

DUST

We've had lots of discussions about dust generation and deposition.

Air is essential for life. Try holding your breath for 24.7 seconds and see how uncomfortable it is. Try breathing air laden with toxic dust, including PM 2.5, for 24hrs, 7 days, and see how deadly it is.

Cumulative effects

By understanding the structure and function of the lungs, the risks from inhalation become blatantly clear. Inhaled substances, under around 7 micron, enter the alveoli, and can pass in to the blood stream. From there, these substances lodge in tissues. The effects may not be evident until years later. This cumulative risk has not been assessed by Kalbar.

That, in turn, has qualitative and quantitative implications for the community, including burden on the health care system, lost productivity and mental health issues to cite a few.

With regards to Mental health, I have no doubts suicides will occur around the area if the project is approved. And there will be increased self harm, whether that be by direct physical injury, or by increased alcohol and other drug use.

Compound stress and unrelenting hopelessness will do that to a person. Particularly after years and years of Kalbar's behaviour. And the known consequences of this mine project, as described by one submitter "hanging over our heads like the Sword of Damascus"

So, again, whose needs are being met if it gets the go-ahead?

From a financial perspective, it's not the Australian Government's health budget. And it's not the people of East Gippsland.

HONESTY, TRUST AND RESPECT

SOCIAL LICENCE

This issue is at the heart of the community – and the communities overwhelming opposition to the project. Kalbars interactions with the community have failed to illustrate or embody those principles which the community hold dear – honesty, respect and trust, to name a few. The outcome being, amongst other things, farm gates locked to Kalbar. And a Rally, petitions, along with a sustained campaign to inform the relevant Ministers of Parliament of the folly of this project.

I've mentioned in my earlier submissions the behaviour of Kalbar over several years. The Community has no confidence that Kalbar will do anything more than look after themselves.

Even their risk mitigation measures to improve community connection (with them) fail to understand the community needs. The notion of having staff 'paid to be volunteers' with the local CFA is just ridiculous, and I suggest those staff members wouldn't be welcome at training or on the truck.

Or Kalbar funding new community events to replicate those which already exist.

And I note Kalbar, during discussions regarding the Community Grants program, commenting about a commitment to increase the amount of those grants "considerably" should the project go ahead. At present, it's \$2000 per application, with a maximum of 5 per round. Again, the notion of financial enticement (like royalties and taxes) is used as justification for the project.

For some people, this might sound like a lure or bribe?

https://ethics.org.au/ethics-explainer-social-license-to-operate/

THE FROG AND THE BUTTERFLY

Mr Casey, TD 387, provided considerable evidence of his concerns for the very poor standard of surveying by Kalbar ecology consultants, and then the revelation about the presence of the Giant Burrowing Frog. *Heleioporus australiacus* on the mine footprint.

This species, which defined by the EPBC Act, is a matter of national environmental significance, and as such, a national living treasure.

It is clear that we, the public, should be as ecstatic as the scientific community are. And everything possible be done to protect the species.

And this is recognised by the Australian Government. In a very recent publication, Consultation Document on Listing Eligibility and Conservation Actions, the following is described as a protective measure

"Liaise with mining companies in habitat areas to avoid impacts of mining on streams and swamps. Avoid diversion of surface water to the sub-surface so that hydrological regimes are maintained and water flows and water quality around the upper reaches of streams and swamps are protected.

Provide input into the various impact assessment and planning processes on measures to protect the Giant Burrowing Frog and its habitat. These include water resource plans, park management plans and environmental impact assessments." (pg 21)

https://www.environment.gov.au/system/files/consultations/b0927131-b81f-43d2-bf5f-bf1fec414ccb/files/consultation-document-giant-burrowing-frog.pdf

Recently, the Hurstbridge Rail line duplication was shelved to protect the Eltham Copper Butterfly. (The Age, Thurs 24 June 21, pg 13)

The butterfly demonstrates the symbiotic relationship with other animals, namely ants in this instance. And this interdependence extends to a particular plant, the Sweet Bursaria.

https://www.environment.vic.gov.au/ data/assets/pdf file/0012/32511/Elth am Copper Butterfly Paralucia pyrodiscus-lucida.pdf

And the Giant Burrowing Frog is no exception. "Eggs are laid as a foamy mass out of the water, inside burrows or empty crayfish holes, and occasionally underneath long tussock grass.."

https://australian.museum/learn/animals/frogs/giant-burrowing-frog/

There is a clear understanding by Government of the reliance and relationships between different species.

The Giant Burrowing Frog doesn't exist in metaphoric isolation, and relies on an ecosystem. That ecosystem, as specified by Government, requires protection. And this project destroys that ecosystem.

WRAPPING IT UP

As I mentioned at the start of this discussion, I had quite a bit to share with you, and this isn't all of it. I'm conscious of the time constraints.

In my first submission, I had short quiz, with a range of questions. Correct answers were provided.

And I also mentioned 'The Deathbed Question'.

Namely, when faced with a situation where I'm weighing up options and choices, I always ask the question "will I be laying on my deathbed regretting the choice or decision I made?"

In summary

The project site is so inappropriate for mineral extraction, and should be protected for future generations, not dug in to.

Massive, deep pits will destroy aquifers which have sustained life for millennia.

Mineral Sands are not fit for human consumption. They're not part of a well balanced diet. Food security, a threat recognised by Government, will be impacted. However, we do need our vegies and other affordable foods which the Lindenow Valley provides.

Aboriginal cultural heritage will be annihilated, compounding the mulitgenerational trauma, at a time when Aboriginal Heritage is, quite rightly, being acknowledged and valued more than ever.

East Gippsland Shire has unanimously opposed the Mine project, and committed considerable cost to an objective assessment and the EES/Panel Hearing process. An investment in our future. Wellington Shires submission, put in by the CEO whilst they were in caretaker mode holds no credibility.

The BA Economics report provides no clarity around financial viability.

There's a risk of on selling the project, negating all conditions applied to Kalbar, and reaping Directors and Shareholder a windfall. Leaving East Gippsland to deal with what's left.

Global tensions with China, include trade embargos and their nuclear stockpiles fail to give confidence that Kalbar are responsible corporate citizens.

The project defies so many legislative frameworks that aim to protect intergenerational equity, the environment and all that is good in the world. Including the Environment Protection and Biodiversity Conservation Act (EPAC) 1999, which came about following Bob Hawkes intervention in the damming of the Franklin River. It is lauded as Australia's central piece of environmental legislation, with associated amendments to address resource extraction.

Kalbar have no social licence to operate. Their lack of honesty, transparency and respect for the community has obliterated any whiff of social licence. They block meaningful dialogue and seek to present a veneer of corporate credibility, which doesn't translate to their actions. They have failed to adequate and consistently consult with the public and impacted landholders. Unorthodox practises and dodgy financial dealings give no confidence that they will do anything more than look after themselves. Kalbar are not an "authentic part of the community".

Kalbar have failed to scientifically and robustly address Scoping Requirements within the EES. My adolescent daughter put it so succinctly "Anything can look good if you ignore the bad parts".

Climate Change is not a staged, predictive or linear process. Suggestions that this project won't greatly impact that trajectory is just utter nonsense. For the Government to consider this project as viable, and benign, flies in the face of their own legislative frameworks around Climate change.

The flora and fauna have no Voice, but have Rights.

This project defies logic, indeed it is intuitively obvious that it shouldn't proceed. Further, the whole area should be formally protected from Mining, in much the same way the Mitchell River flats are.

With this project, and all things being considered, whose needs are being met?

Will you, as Panel Members, regret the decision and recommendations you make to the Minister? Thank you for your time today.