KALBAR OPERATIONS PTY LTD

EES KEY FINDINGS WEBINAR

Thursday 25 June 2020 – 7 pm to 9 pm

The information provided below is a written record of the questions asked and answers provided during the EES Key Findings Webinar held on Thursday 25 June 2020. The questions and answers have been grouped in the Scoping Requirements Evaluation Objective topics as they were during the Webinar. They have been further dissected into the following order:

- Pre-submitted questions answered on the night
- Pre-submitted questions not answered on the night due to time constraints
- EES Key Findings appropriate questions asked via the chat function during the webinar answered on the night
- EES Key Findings appropriate questions asked via the chat function during the webinar not answered on the night due to time constraints
- All questions that were asked but not applicable to the EES Key Findings are grouped at the back of this document.

This session was video recorded and can be found on our Fingerboards Project website and viewed via YouTube. Approximately 85 members of the general public attended this community information session.

The written questions and answers are not intended to be a transcript of the webinar.

Resource development

Question

Can you advise what factors are included in arriving at the 'net economic benefit' of the Fingerboards Project, ie what was included in the CBA?

Answer

By CBA, it is assumed the reference is to Cost Benefit Analysis from the BAE Economic Report. The Cost Benefit Analysis (CBA) is a technique for assessing the economic merits of an initiative or course of action (such as undertaking a mining investment) from the perspective of society as a whole. The CBA follows the guidelines released by the NSW Government in 2015 (there are no Victorian guidelines). The CBA compares all costs and benefits attributable to the initiative, discounted to a common point in time, to arrive at an overall assessment of whether the initiative is 'net beneficial', that is, whether society will benefit from its implementation. A project is net beneficial if the Net Present Value (NPV) of the sum of benefits minus the sum of costs is greater than zero.

The Table below outlines the NSW framework.

Table 1-1. Cost Benefit Analysis framework

Direct Benefits	Indirect Benefits	Indirect Costs
The net benefits that accrue to Victoria from the direct operations of the proposed mine	The net benefits that are generated for parties that economically interact with the proposed mine	Social costs generated by the proposed mine, borne by the Victorian community
Includes: • Net producer surplus attributable to Victoria • Royalties payable • Company tax attributable to Victoria	Includes: • Net economic benefits to landowners • Net economic benefits to Victorian employees • Net economic benefits to Victorian suppliers	Includes: • Net environmental, social and transport-related costs • Net public infrastructure costs • Loss of surplus to other industries

Source: NSW Government (2015).

Question

How was the loss of environmental values costed?

Answer	See table below (Table 1-3 from BAE Report) which outlines the evaluation approach for each category of cost.

Category	Evaluation approach
Loss of surplus in other industries – Agriculture	Market-based productivity measure, reduced agriculturual output
Housing	Discussion of market conditions
Ambient noise	Defensive expenditure including the purchase of noise monitoring equipment
Surface water and groundwater	Both defensive expenditure, including the construction and decommissioning of surface water dams and water management and the on-off purchase of water licenses
Greenhouse gas emissions	Monetised damanages using a market price for emissions.
Air Quality	Defensive expenditure including steps to monitor air quality
Biodiversity	Offset costs, using a market-based valuation
Traffic and transport	Defensive expenditure including the steps to mitigate against potential traffic and tansport impacts
Net public infrastructure costs	No residual public infrastructure costs
Landscape and visual amenity	Defensive expenditure including the costs to construct a visual bund
Heritage	The residual impact to the three Aboriginal cultural heritage sites is acknowledged and assessed qualitatively (assumed to be zero)

Question	Given the report covers the life of the mine, did it include costs of rehabilitation?
Answer	Yes, all direct costs, including rehabilitation and closure, are included in the Cost Benefit Analysis.
Question	Was any modelling done on unfortunate but not unlikely events that could impact on operations and profitability over the next 15-20 years such as oversupply of markets, effects of drought, infrastructure (eg dam) failure?
Answer	Yes. A sensitivity analysis of the Cost Benefit Analysis was conducted for the key assumptions used in the modelling. Even under the most pessimistic scenario, the net benefit to the Victorian community was $289.3 million in Net Present Value terms.
Question	Were the effects of competition for labour included in this part of the report or in some other part?
Answer	Yes, the assessment does recognise the potential impact of labour competition on other industries (eg agriculture).
Question	Was any cost put on the loss of aboriginal or European cultural heritage?
Answer	This is assessed in the study. The residual impact to three aboriginal cultural heritage sites is acknowledged and assessed, however the net economic impact on these sites is considered to be zero in the study. There are no registered European cultural heritage sites impacted by the project.
Question	Is the project area you are focussing on the most economic in the Glenaladale deposit?

Answer	Yes. The highest grades of valuable minerals are found within the project area. The ore within the proposed mine plan has an average grade of 1.2% in ground zircon versus a zircon grade of 0.4% for the entire Glenaladale deposit.
Question	What insurance do you have against the possibility of dams failing and what consequences are you covered for?
Answer	We interpret this question to mean insurance cover. At present, Kalbar has insurance policies in place for its current business activities. On the basis that construction and operations commence, Kalbar will obtain all the necessary insurance cover related to these activities. This will include process risk, which would include infrastructure or plant failure.
Question	Is the Fingerboards mine the first phase of mining the whole of the Glenaladale deposit? If so, why wasn't all of it included in the EES?
Answer	The Fingerboards Project is considered a stand-alone mine by Kalbar and the EES relates specifically to this project. Kalbar may in the future assess mineralised areas outside of the Fingerboards project area, but this assessment will require significant exploration, metallurgical and technical work. Any development beyond the current project will require a separate impact assessment, which would consider the combined impacts of the existing Fingerboards project and any additional mine contemplated.
Question	Did the economic report include 'second-round' benefits as well as direct and indirect impacts?
Answer	Yes, the study considers both direct and indirect benefits and costs, plus secondary employment benefits as a result of additional services and suppliers resulting from the project.
Question	How was government contribution to specific infrastructure requirements (eg roads, rail and power) considered?
Answer	The Cost Benefit Analysis assumes that there is no government contribution to the project.
Question	Were you able to break down the local versus regional versus state-wide benefits?
Answer	Yes, both regional and state impact are assessed in the economic modelling. Over the period 2020 to 2035, the Project is projected to increase Gross Regional Product (GRP) in the East Gippsland region by just over $1.4 billion in NPV terms. The projected increase in Gross Regional Income (GRI) over the same period is projected to be just over $2 billion in NPV terms, while the increase in employment in the region averages 93 FTE. For Victoria as a whole, over the period 2020 to 2035, Gross State Product (GSP) is projected to increase by just under $1.6 billion and Gross State Income (GSI) by $2.4 billion in NPV terms. The overall increase in Victorian employment is around 110 FTE on average over the period.
Biodiversity	
Question	How confident are you that the field investigations have adequately documented the ecological values across the project area?
Answer	Field investigation commenced in June 2016 and multiple field surveys have been undertaken to document the flora and fauna values across the project area. This involved detailed native vegetation assessments, targeted surveys for significant flora and fauna species (eg Masked Owl, Giant Burrowing Frog and Australian Grayling) and ecological communities, an assessment of Ground Water Dependent Ecosystems and several detailed offset investigations.
Question	What offsets do you have to provide?
Answer	Any project across Victoria with a proposed impact on native vegetation must comply with State guidelines and Federal legislation under the EPBC Act. Kalbar is required to satisfactorily demonstrate that the biodiversity offsets required for the project can be obtained. There is a range of state offsets required for the Fingerboards Project and these offsets will be secured prior to vegetation removal during each stage of the Project.
Question	How have the offsets needed been calculated? Please itemise each class.
Answer	There are two types of biodiversity offsets required for the project: 1) under the Commonwealth EPBC Act, and

	2) under the State government's Native Vegetation Policy (the Guidelines). The Commonwealth offset calculator is used to generate the total offsets for the EPBC Act-listed vegetation community. The area of proposed removal is used in the calculator together with several criteria regarding the proposed offset site(s). Offsets are calculated by using the extent and quality of each Ecological Vegetation Class that has been obtained during detailed field assessments within the infrastructure layout. The spatial data is provided to DELWP and they provide a report known as the Native Vegetation Removal report that states the offsets that are required for the project.
Question	Where are the biodiversity offsets, State and Federal, coming from?
Answer	Offsets will be taken from several locations within the vicinity of the project area. All offsets will meet the requirements under EPBC Act and the State Native Vegetation Guidelines.
Question	Are you claiming the work of Paul Gibson-Roy in revegetating after the mine has finished as part of the offsets?
Answer	No, not at this stage. However, this will be discussed with DAWE and DELWP as to whether any of the revegetation be can used to fulfill a portion of the offset requirement.
Question	How will the 200 hectares of restored native grassland by managed in perpetuity?
Answer	Investigations relating to the establishment of the 200 hectare grassland/grassy woodland is ongoing. One option is to have a security agreement (eg Section 173 Agreement, Section 69 Agreement or a Trust for Nature Covenant) over this area so that it is permanently protected and managed in the future.
Question	What guarantees are there that the offset program would be honoured if you sold to another company?
Answer	Irrespective of the owner of the project (ie now and in the future), there is a requirement under both Commonwealth (EPBC Act) and State (the Guidelines) legislation and policy that offsets need to be secured and managed for the Project prior to the removal of native vegetation during the life of the project (offsets will be staged according to the mine staging plan). This will be a condition of the project being approved.
Question	Are all the offsets on private property?
Answer	Yes, most likely at this stage.
Question	Can you list how many of the offsets are already established and how many of them are new plantings?
Answer	All offsets at this stage are sites supporting existing remnant native vegetation.
Question	What species of trees, grasses and other flora are included in the offsets?
Answer	A diversity of species associated with a range of Ecological Vegetation Classes are currently present at the proposed offsets sites.
Question	How have you accounted for ecological values on properties you have not got permission to survey on?
Answer	A desktop assessment was undertaken for these areas. These areas will be formally assessed prior to any proposed removal should the project be approved. Any significant ecologies values (eg significant vegetation communities or presence of significant flora and fauna species) will be considered as part of any impacts to these areas.
Question	How many seedlings are you using to replace each mature tree lost?
Answer	Under the Guidelines, each Large Tree (both scattered trees and trees in patches) proposed to be impacted needs to be offset by another (one tree) Large Tree at an offset site (ie one for one offset requirement).
Question	Where do you plan to have offsets for the mature trees you are removing?
Answer	There are multiple properties where Large Tree offsets will be secured for the project.
Question	Will the offsets be in the Glenaladale area?
Answer	Yes, most of the offset sites will be within the local area, although some sites will need to be sourced from the East Gippsland Catchment Management Authority area, which is in accordance with the State Native Vegetation Guidelines.
Question	Have other mining companies been able to change the offsets initially required through variations to work plans?

Answer	Should the Project be approved, the overall offset requirement for the Project will be clearly stipulated in the approval conditions (based on the Minister's recommendations). Should there be a need to adjust the extent (ie more or less areas) of vegetation removal, then this process can be managed through the work plans at specific stages of the project. It is at the discretion/determination of the relevant regulators (ie DAWE and DELWP) as to whether any native vegetation that is additional to that identified in the EES be approved.
Question	Given that the mine will affect existing habitat and ecosystems on the site, how does the Project align with current best practice in environmental protection?
Answer	The proposed mine will adopt the best practices in environmental management relevant to the style of mining and the specific geographical setting of the mine. Where possible, the mine will avoid environmental impact and where avoidance is not possible, seek to minimise the impact through the mitigation measures proposed in the EES and draft work plan.
Question	How have the isolated trees been identified and valued?
Answer	Every tree across the Fingerboards Project footprint has been mapped. Those that have hollows and provide habitat for a range of fauna species have been highlighted and identified through DELWP and target surveys undertaken for identified faunal species. The majority of trees to the south of the Project area through the haul road area will be avoided by skirting around individual trees and micro-siting. A number of large trees will be impacted in the Project footprint. As part of the offset process there is a requirement to adequately find and secure the equivalent number of trees in another area to permanently protect as compensation for any proposed tree removal. DELQP and the Technical Reference Group paid specific attention to scattered trees due to the habitat they provide.
Question	Why have two major areas of native bush on the Project area not been evaluated ecological units. Your report discounts the trees. Why is that?
Answer	Although it is not known where the specific area(s) along Lucas Creek and Spring Gully that this question refers to, the likely reason why these areas have not been mapped as patches of native vegetation is that they did not meet the 'patch' definition under the Guidelines for the removal, destruction or lopping of native vegetation (the Guidelines). That is, a patch of native vegetation is defined as an area of vegetation where at least 25 percent of the total perennial understorey plant cover is native, or any area with three or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy. Rather, scattered trees have been identified and mapped in these areas as shown on the ecological figures maps in the ecological investigations report, and those trees that are proposed to be removed will need to be offset in accordance with the Guidelines.
Water, catchment values and hydrology	
Question	On a diagram dated 24 March 2020 in the video presentation of the EES Key Findings, it shows there are 20 dams that Kalbar proposes to build on the 1,675 hectares of the Fingerboards mine project. What is the purpose of the dams labelled 2 through 20 on the diagram?
Answer	The dams 2-20 are required to manage rainfall and run-off on the site. All the dams work together in a systematic process to prevent uncontrolled discharge of "mine contact water" from the site. Water is segregated according to its quality such as clean water, and water affected by the mining operations. Rainfall run-off from undisturbed catchment areas upstream from the mine will be temporarily captured in dams and then diverted around the site and released downstream into the natural creeks. This prevents clean water entering the mine works and maintains creek flows. Water affected by mining operations is captured and re-used to ensure that downstream environmental values are protected. This water will be offset with clean Mitchell River water.
Question	Why does Kalbar need to build dams on the gullies?
Answer	The dams are for management of rainfall runoff, and run-off flows downhill to gullies. Gullies are perfect places to capture the water that comes off the site as they are convenient and

	logical places where water flows down-hill. Water is stored until it is cleaned and suitable for release, or stored for re-use around site in areas such as dust control, supplying revegetation, and a range of other purposes.
Question	Are safeguards put in place that the water required by farmers and communities get priority over the mine requirements at all times?
Answer	Yes, there are safeguards. Surface water –a winterfill licence is sought where water will only be taken during periods of high flow. The licence has restrictions even during that period. If passing flow reduces below 1,400 megalitres per day, the extraction stops. Typically, farmers and other year-round licence holders will still have access to water below that level and they still continue to extract water per their licence conditions. Groundwater – the system is already allocated. Approval from Southern Rural Water would be required to secure an allocation from another user who is willing to sell their entitlement. In conjunction with that approval for a groundwater licence, modelling confirms that if that process is approved and groundwater is extracted, there will not be interference with other nearby users.
Question	How much water will be prevented from going into the Mitchell annually as a result of the dams?
Answer	Hydraulic modelling predicts that between 130 ML/year and 270 ML/year may be prevented from reaching the Mitchell River. This equates to approximately 0.01% of annual flow volumes for the Mitchell River. This is a small volume but to really remove any impact at all, offset water is retained in dams. Ultimately, there will be no net-annual loss of water entering the Mitchell River as a result of the water management dams. This is because Kalbar has committed to offsetting the same volume of run-off retained in dams with fresh water that is stored onsite.
Question	What is the actual depth, below sea-level, that Kalbar intends to extract water from in its proposed borefield? There has been contradictory information supplied by the company in this regard.
Answer	Kalbar plan to further refine their knowledge of the deep aquifer, known as the Latrobe Group (LTA), over the next several months. The LTA is the target for mine groundwater supply due to its potential yield, but also its isolation from third party users and environmental receptors. Preliminary investigations undertaken during the EES have indicated that bores will extract water > 300 metres below ground level at the borefield site. Compared to sea-level, the pump inlets will be set > 200 metres below mean sea level.
Question	Who owns the water rights at present?
Answer	Some surface water in the Mitchell River is currently allocated to various private and commercial users including agriculture and urban water supply. The Mitchell River still has water available for new users under a range of licence conditions. The water that Kalbar is seeking under a winterfill licence is not currently allocated to anyone. In the case of groundwater, there are many different stock and domestic, irrigation and commercial users who own water rights. Kalbar would be required to seek a temporary or permanent transfer of these entitlements from existing groundwater users.
Question	What will be the impact on contaminated water entering the Mitchell river and subsequently the Gippsland Lakes? What protections are in place?
Answer	Water management dams will be constructed downstream of areas being actively mined to prevent run-off from entering the Mitchell River, Perry River, or the Gippsland Lakes. Modelling shows that the water management system may be exceeded by extreme rainfall events at a frequency of approximately once every 100 years to the Perry River catchment, and approximately once every 50 years for the Mitchell River catchment. In the unlikely event that run-off does enter the downstream environment, water quality modelling indicates that this would not have a measurable effect on the quality of water in the Mitchell River or Gippsland Lakes.
Question	Have the impacts of planned surface water dams been shared with neighbouring properties and Southern Rural Water and East Gippsland Catchment Management Authority?

Answer	Southern Rural Water and East Gippsland Catchment Management Authority are both part of the Technical Reference Group who have reviewed the technical water studies, including impacts associated with water management dams. This review process has ultimately shaped the final water management approach presented in the EES. For example, comments from the Technical Reference Group ultimately led to the decision to offset captured run-off by releasing an equivalent volume of fresh water back to the Mitchell River.
Question	On a diagram dated 24 March 2020 - what will be the size of each of those dams?
Answer	Indicative dam areas in the table below.

	Maximum Catchment Area (ha)	Storage Volume (ML)	Approximate Spillway height (m above toe)	Approximate Embankment Length (m)	Area (ha)
Max	280	266	24	830	6.9
Average	108	102	11	183	2.8
Min	7	7	1	20	0.4

Question	On a diagram dated 24 March 2020 - how much water will each of the 20 dams be designed to hold?
Answer	The dam sizes will be dependent on the size of the catchment upstream. Each dam will be sized to capture run-off from a one in 100 year storm. The dams have not been through detailed design yet, so sizes are subject to change. Statistics for preliminary dams:

	Maximum Catchment Area (ha)	Storage Volume (ML)	Approximate Spillway height (m above toe)	Approximate Embankment Length (m)	Area (ha)
Max	280	266	24	830	6.9
Average	108	102	11	183	2.8
Min	7	7	1	20	0.4

Question	On a diagram dated 24 March 2020 - how will those dams be lined?
Answer	Dams will most likely be lined using compacted clay, from the site if the material is suitable, and compacted to meet engineering specifications suitable for water management dams, with the aim of minimising leakage.
Question	When did the Technical Reference Group (TRG) hold its last meeting and when was the information about those dams provided and discussed with the TRG?
Answer	The dams have been a critical part of the water management strategy throughout the life of the project to date. The current proposed arrangement of water management dams was presented to, and discussed with, the TRG in February 2019 and review again by the TRG in May 2019.
Question	What are the specific regulations that would permit Kalbar to build dams on gullies and what permits would be required?
Answer	The project will require licences under Section 67 of the Water Act 1989 for construction of infrastructure intercepting and transferring catchment run-off.

Question	As stated in the EES Key Findings video, the project will "manage surface water extraction to maintain minimum flow requirements in the Gippsland Lakes Ramsar site". How will this be done?
Answer	Extractions from the Mitchell River will occur with licence conditions set by Southern Rural Water. Kalbar will apply for a licence to take water during winter periods when the river has flows above a minimum threshold. Kalbar's licence will not allow water to be taken from the Mitchell River during low flow periods – so flows to the Gippsland Lakes will be maintained. Rainfall run-off captured in the water management dams will be either diverted around the site and released to the environment, or offset from the clean water storage - so the operation of the water management dams will not result in a reduction of flow in the river.
Question	On a diagram dated 24 March 2020 - what discussions have been held with landholders and irrigation water users about those dams?
Answer	There are ongoing discussions with landholders on whose properties those dams will be located.
Question	On a diagram dated 24 March 2020 - are the dams going to remain where they are when mining has been completed? If not, what will happen with them when mining has been completed?
Answer	No, dams will not remain when mining has been completed. Dams will be removed once the area of catchment that they're needed for has been rehabilitated.
Question	Seeking information around water containment on the site - for example, an east coast low that can bring 8"+ rain with localised flooding, there is potential run-off flooding that can occur into Lindenow Valley. What procedures and water containment are planned to mitigate this?
Answer	Water management dams will be constructed downstream of areas being actively mined to prevent run-off from entering the Mitchell River, Perry River, or the Gippsland Lakes. Modelling shows that the water management system may be exceeded by extreme rainfall events at a frequency of approximately once every 100 years to the Perry River catchment, and approximately once every 50 years for the Mitchell River catchment. In the unlikely event that run-off does enter the downstream environment, water quality modelling indicates that this would not have a measurable effect on the quality of water in the Mitchell River or Gippsland Lakes.
Question	What is the total amount of water that can be accessed from the aquifers?
Answer	The total amount of water is based on the existing licences for each aquifer and within each groundwater region. The aquifers are fully licenced and no new water allocations will be released. Kalbar will need to purchase or lease groundwater from existing licence holders.
Question	How much consideration has been given to farmers who rely on water from the gullies including the irrigators?
Answer	Kalbar has consulted with Southern Rural Water and East Gippsland Catchment Management Authority regarding users of water and how operations relate to those users. There are also legislative requirements – Section 67 of the Water Act – which need to be considered regarding configuration of the site to ensure existing users are protected.
Question	How many years will those sediment control dams need to be retained if the regeneration does not work?
Answer	This is a rhetorical question. If regeneration does not work, dams need to be there forever. Regeneration will be able to work. As custodians of the site, the land needs to be managed appropriately. Dams will be there until revegetation is established. An advantage of progressive rehabilitation is that only relatively small areas are rehabilitated annually, so if there is a rehabilitation failure or vegetation is slow to establish in any given year, then that the area is not large and work can continue with further re-seeding or replanting, and if required, applying surface stabilizers. The end result of this would be that over the Life of Mine, vegetation will be established and stable at the time of closure, meaning that it's unlikely that dams would have to be retained for periods beyond what is planned due to rehabilitation failures.

Question	How can Kalbar ensure that it does not impact on the Gippsland Lakes RAMSAR listing?
Answer	Exhaustive studies have been undertaken to give confidence that any potential impacts can be managed by the extensive water management regime detailed. There will be a comprehensive monitoring regime required to measure site operations. Kalbar will learn how things operate and feed that knowledge back into operations. Kalbar is confident there will be no impact on the Gippsland Lakes.

Amenity and environmental quality

Question	What are the Victorian standards for noise pollution?
Answer	There are different guidelines for different types of noise. Victorian standards for noise that are relevant to the Fingerboards Project are Noise from Industry in Regional Victoria (NIRV). This provides criteria and methodology for assessing noise from commercial operations to noise-sensitive receivers (ie dwellings). This will be the primary standard for operational noise from the project. There are also some relevant guidelines that are referred to: EPA Guidelines 1254 (which provides guidelines for construction noise); NSW Road Noise Policy (while strictly relevant to NSW only, this document is commonly referenced in Victoria to provide guidance about short-term maximum noise levels at night that can cause awakening reactions) and NSW Road Noise Policy (while strictly relevant to NSW only, this document also includes guidance about noise from relative increases in heavy vehicle traffic on public roads due to projects).
Question	How will Kalbar keep the dust down in the open areas of the mine?
Answer	Kalbar will implement best practice industry techniques to manage dust. These include: • watering haul roads • transport and process ore as a slurry (via pipeline) • minimising overburden haul distances and drop heights • limiting vehicle speeds • use of suppressants • minimising open areas • rehabilitating mined areas as quickly as possible • modifying mining practices according to weather and proximity to sensitive receptors
Question	What noise and air quality monitoring will be done by Kalbar?
Answer	Continuous air quality and noise monitoring is already being conducted and will continue throughout construction and operations at locations representative of sensitive receptors. Monitoring locations will change, depending upon the locations of mining activities. The monitoring equipment feeds back into a predictive management process to integrate not just levels being read, but also weather conditions and planned mining activities. This allows an understanding of what levels will be reached so that mining activities can be managed to ensure that dust and noise is managed to avoid exceedances.
Question	Can Kalbar guarantee the product concentrate will not be blown around by the strong winds?
Answer	The processing of the ore to concentrate results in all the minerals within this product having a grain size of greater than 40 microns. In addition, the minerals within this product are dense (about twice the density of sand). Furthermore, the stockpiles of product will be damp, as they are dewatered from the wet concentrator plant. Kalbar intends to locate the Wet Concentrate Plant and concentrate stockpile within an existing blue gum plantation. The surrounding trees are expected to act as an effective windbreak for the concentrate stockpile area. Kalbar therefore is confident that product concentrate will not be dispersed beyond the product stockpile area.
Question	What is the dust deposition particle distribution at distance such as 200 metres, 500 metres, 1 kilometre?
Answer	This would depend on the year of operation and the wind direction and wind speed. Modelling has been done to predict worst case airborne PM2.5, PM10 (the human health component) as well as total dust deposition per square metre (nuisance dust). Modelling

	shows the Fingerboards Project, with controls in place, can comply with air quality regulations at the nearest receptors to the Project.
Question	What are the impacts of heavy vehicles and traffic noise on the amenity of local residents and does it meet the required noise standards?
Answer	As the EES studies have developed and the Avon River Bridge upgrade has become a reality, the preferred transport option is via a dedicated private haulage road to a new rail siding at Fernbank East. This preferred transport option avoids risk to pedestrians and other road users from heavy vehicles transporting the heavy metal concentrate, as well as affecting fewer noise sensitive receptors. This option also avoids the use of local roads and travel through towns.
Question	Have you included the impacts on the South Gippsland Highway (and communities along it) as well as the impacts on Port Anthony and Corner Inlet in your EES studies? If not, why not?
Answer	The South Gippsland Highway and Port Anthony have been considered in the EES studies. It is worth noting that these options no longer constitute part of the preferred transport option.
Question	Can you explain how you arrive at identifying sensitive receptors around the mine site for the purpose of air quality and noise assessments?
Answer	Kalbar has identified the sensitive receptors relevant to each of the EES studies. These EES studies include, but are not limited to: • Noise and vibration • Air quality • Visual and landscape • Human Health • Traffic and transport While there are many overlapping receptors, not all receptors are relevant to all the studies. There is no universal set of sensitive receptors. For example, there are a number of sensitive receptors relevant to traffic and transport, which are not relevant for air quality or visual and landscape. The map showing residences and receptors is a public document and we are confident that we have not missed any relevant sensitive receptors for each of the specific EES studies.
Question	What chemical suppressants will be used (in relation to dust suppression on haul roads)?
Answer	Magnesium chloride or commercial products such as DustMag ™ or Dustworx ™, which are polymer-based dust suppressants.
Question	How can Kalbar say that the surrounding Lindenow vegetable farms will not be impacted by contamination on high wind days, knowing the wind station is situated in a gully?
Answer	The weather station measures wind speed and direction at 10 metres above ground, minimising the impact of variations in terrain. The modelling conducted accounts for a range of weather events, including wind speeds and directions measured over a year. The modelling predicted that with routine management, and additional dust mitigation on some days, dust levels would comply with relevant air quality criteria at the nearest sensitive receptors. Management of dust emissions from the mine during operations would be informed by the use of real-time dust monitoring around the mine and weather forecasting. This would identify periods in which additional management measures would need to be taken on-site under such events in order to minimise or prevent emissions of dust. These systems will be in place throughout the mine life.
Question	What is the air quality criteria Victor referred to?
Answer	The air quality criteria relevant for the assessment of the Fingerboards Project are specified in the Protocol for Environmental Management for Mining and Extractive Industries. For contaminants emitted by the project that are not contained in this protocol, air quality criteria from other jurisdictions have been adopted. This included Effects Screening Levels published by the Texas Commission on Environmental Quality for heavy metals, and dust deposition guidelines from Queensland and New South Wales.

Social, land use and infrastructure	
Question	Will all the workers, both unskilled (to do the menial cleaning work etc) as well as the trained, experienced, mine workers be sourced from the local area?
Answer	Kalbar aims to employ local people in the construction and operation of the project. We anticipate that about 80-85 percent of the 200-strong workforce will be sourced locally as the skills required are available locally. There are a number of roles that are specialised in nature and may have to be filled by people from outside the region.
Question	What are the findings of the EES regarding impact on farming?
Answer	Based on technical expert report assessments and review of case studies, it has been concluded that farming will overall not be affected. Agriculture and the mineral sands mine can co-exist. Mitigation actions are designed to negate impacts. Horticultural enterprises may experience reduced access to labour due to competition created by the project's workforce requirements. This would only apply to jobs were the same skill sets are required. Dust deposition modelling indicates that deposition rates within horticulture production areas comply with relevant air quality criteria. Some local vegetable growers expressed concern about the potential loss of produce value and market due to damage to the region's reputation for producing high quality produce. Analysis of public perceptions and buying habits indicated that the residual risk of potential losses of value and income as a result of the project is low.
Question	How much training and experience is required to drive a B-Double? What other sorts of jobs would you train them for? My senior students are very excited at the possibility of getting jobs in the mine if approved.
Answer	Kalbar is putting in place opportunities for apprenticeships and traineeships and working with training facilities and providers in the region to ensure that skills gaps can be filled and that all personnel who will work on the Fingerboards Project will be adequately trained and competent. Opportunities will also be available for a variety of disciplines including mobile equipment operators, plant operators, mechanical and electrical trades and technicians, and technical and professional roles including engineering, horticulture and restoration, accounting, geology amongst others.
Question	We understand you have told school students you would be providing training for school leavers to be truck drivers or to train for other jobs in the mine. Can you advise what sort of jobs would be available for them and whether they would be trained to drive the B Double trucks?
Answer	Kalbar is putting in place opportunities for apprenticeships and traineeships and working with training facilities and providers in the region to ensure that skills gaps can be filled and that all personnel who will work on the Fingerboards Project will be adequately trained and competent. Opportunities will also be available for a variety of disciplines including mobile equipment operators, plant operators, mechanical and electrical trades and technicians, and technical and professional roles including engineering, horticulture and restoration, accounting, geology amongst others.
Question	Will Kalbar cover all road construction costs and maintenance costs during the life of the mine?
Answer	The cost of any road construction or modification required for the Fingerboards Project will be met by Kalbar and has been factored in to the economic assessment of the Project. Kalbar will contribute financially to the maintenance of these roads. Our first preference is to construct and maintain a private haul road.
Question	Do you think you will be able to source sufficient skilled miners from East Gippsland?
Answer	Yes, we can source sufficient skilled workers from East Gippsland – there are many transferrable skills within the region and we have already been working with local skilled workers for some time - many work packages and jobs have already been awarded locally. Where we see gaps in skills we are prepared to train and develop workers to utilise them for our activities.

Question	Do you consider that people in the Latrobe Valley, which is included in the 'Gippsland' region are 'local'?
Answer	Kalbar has local content guidelines to which we are committed. The majority of the skills we require can be found locally, and as such, so can the majority of the workers.
Question	Will you advertise these jobs in the local paper only or in the Melbourne or wider Gippsland regions if the project wins approval?
Answer	We are yet to finalise our procurement structure, however, there will be competitive tendering processes and much of the mine infrastructure is within local capabilities.
Question	How many workers would there be actually working on the mine site each day? How many in the processing plant?
Answer	The project is expected to generate direct employment for 200 people during construction and 200 people during operations. Operation will be 24-hours-a-day, seven-days-a-week and will be split into shifts.
Question	Will you be employing a contractor to source the workforce, or will Kalbar staff be doing the hiring themselves?
Answer	This is yet to be determined. However, during peak recruitment periods, it is likely that recruitment agencies will be used to assist with recruitment.
Question	If you end up railing the concentrate, which port will it be shipped from?
Answer	Port of Melbourne.
Question	Do you intend to use the builders in the Bairnsdale area to build the mine infrastructure?
Answer	Yes. Kalbar's Local Content Guideline (on the Fingerboards website), defines East Gippsland and Wellington Shires as Zone 1 local content and the greater Gippsland as Zone 2.
Question	How many jobs will be lost in the farming community and how many local jobs gained through mining over what time period?
Answer	The project is expected to generate direct employment for 200 people and indirect employment for 200-400 people.
Question	Will we expect to be seeing young (under 21) B-Double drivers driving your trucks?
Answer	The real opportunity for young machine operators will be with mining plant, ie excavators, dump trucks, dozers, etc.
Question	Have you visited the location where the mine will be located? How can you make your statement about horticulture co-existing with this mine?
Answer	From Dr Doris Blaesing: I have been to the location even though I have not visited all landholders in the region. I have been to the region many times for work and holidays. I also have been to many vegetable production regions nationally, including where sand mining and horticulture co-exist. Other RMCG personnel, directly involved in the preparation of the study, have also visited the site/region and met with horticulture producers. As stated, RMCG's assessment for the region was based on technical reports, case studies and primary study were required. We have taken the responsibility of the study very seriously and especially considered mitigation and monitoring strategies.
Landscape and visual	
Question	How will the mine affect the views in the district for residents and visitors and what will be done to screen the mining area from view?
Answer	The analysis process, which assessed views from rural residences, found that for the majority, views would be either filtered or significantly screened by vegetation surrounding the residence. The assessment found that only a few houses would experience a high level of impact during the time that the mining activities traversed the area adjacent to the property. The level of visual impact would drop quite quickly once amelioration measures were established. Even the initial covering of grass would be highly effective. Views would be possible as residents and visitors travelled on roads throughout the area when the mining activities were proximate to a particular viewpoint. However, the duration of the view would be likely to be no more than 30 seconds to a minute. As such, apart from designated tourist

	routes, the level of impact was found to be low. Visual amelioration bunds are to be constructed where the proposed activities are adjacent to tourist routes. The bunds are to be revegetated and, once again, the establishment of a grassed surface cover would be highly effective at reducing the visual impact of the exposed soils. A key aspect to reduce all impacts is ensuring that progressive rehabilitation is implemented and the sooner that rehabilitation is undertaken, the sooner the visual impacts will fall away. Once the rehabilitation is undertaken, the mine moves on and the visual impact is short-lived.
Question	What are the Victorian standards for light pollution?
Answer	There is no applicable Australian standard for the assessment of lighting settings. The methodology applied in this study is drawn from the Institute of Lighting Engineers' (ILE) Guidance Notes for the Reduction of Obtrusive Light and includes a range of categories with which to describe the lit situation of the landscape. These environmental zones are supported by design guidance for the reduction of light pollution which can then inform proposed mitigation techniques.
Question	What is the visual amenity impact and how will you address that – is it through tree screening?
Answer	The amenity impact primarily relates to views from residences. The impacts on views from these locations will be initially mitigated as the landform is returned to its former profile and the grassed ground cover established. Over time, the growth of taller vegetation will further reduce impacts.
Cultural Heritage	
Question	How are sacred aboriginal sites protected?
Answer	In general: • All aboriginal cultural heritage sites are protected by the Victorian Aboriginal Heritage Act 2006 and may only be harmed through the conditions of an approved Cultural Heritage Management Plan or a Cultural Heritage Permit. • Severe penalties in excess of $1.5 million apply under the Act for not reporting on the discovery of, or harming aboriginal places, objects and aboriginal human remains. • The Act recognises aboriginal people as the primary guardians, keepers and knowledge holders of aboriginal cultural heritage. Registered Aboriginal Parties (RAPs) are the aboriginal organisations recognised under the Act with responsibilities for the management and protection of aboriginal cultural heritage.
Question	How will Kalbar manage aboriginal sites?
Answer	The Fingerboards Project: • Is required to prepare an Aboriginal Cultural Heritage Management Plan (CHMP) under the Act prior to the issuing of permits that will allow the project to commence its operation. • A CHMP (ID 14969) is currently being prepared. The CHMP will continue to investigate the presence/absence of Aboriginal heritage sites through: o Field assessments, both surface and subsurface o Refinement of the site predictive model o Continued consultation with the RAP • After approval for the CHMP is obtained, the Project must comply with all CHMP conditions that may include site-specific and general management conditions to be implemented before the project commences, during the project and after the project has ended (as appropriate). The project must also implement contingency measures (chance finds protocols) that provide clear instructions that must be followed in the event that aboriginal cultural heritage places or materials are discovered during the construction, operation or decommissioning of the project.
Question	What are the most sensitive areas for aboriginal heritage in the proposed mine area?

Answer	The site predictive model identified areas of high ridges (which are the remnant dunes), several alluvial terraces and fans along the incised gullies as well as the interface between the upper planar surfaces (the large flat areas) and the steep gullies (directly overlooking the gullies) as areas most likely to contain aboriginal heritage places.
Question	What information do you have on aboriginal sites at Fingerboards?
Answer	The investigations so far have included survey and subsurface testing. The results have broadly supported the model with the majority of artefacts (n=191) found on the dunes, 66 artefacts within the alluvial terraces and fans and 85 on the upper planar surfaces.
Question	Does the CHMP have to be included in the EES?
Answer	Generally speaking, an approved CHMP is not a requirement of the EES but a demonstration that CHMP is underway is required. No, an approved CHMP is not required at this stage. A CHMP is required to be approved before a works plan is granted by Earth Resources Regulation (ERR). If the Fingerboards Project get thru EES gate, the next step is to apply for a mine work plan and that does require an approved CHMP. Kalbar is now working at finalising the CHMP.
Question	What is a CHMP?
Answer	Cultural Heritage Management Plan. This is a requirement when certain high impact activities are planned in an area of high cultural sensitivity or where an EES is required. The CHMP is defined by the aboriginal heritage regulations to the Aboriginal Heritage Act. It is a written report by a heritage adviser that includes results of an assessment whether desktop, subsurface testing, or survey, or all three. A CHMP outlines conditions the sponsor has to fulfil during and after the activity.
Mine rehabilitation and closure	
Question	What do you mean by 'continual rehabilitation'?
Answer	This is generally called progressive rehabilitation. It means that rehabilitation follows closely after mining, and the area rehabilitated each year is generally about the same as the area disturbed for mining. This is regarded as best practice for a number of reasons, including: • Regular rehabilitation works develop and retain trained staff • Ensures that areas done at any one time are not large and any failures are readily repaired • Over time, methods are refined, equipment is optimised and readily available, and • The area to be rehabilitated at closure is relatively small.
Question	Will there be a focus on not only rejuvenating the land to how it was (its current state) or will there be a mission to revegetate the land to how is should be and how it would have been 200 years ago, aiming to leave the site better than it is currently?
Answer	The short answer is yes, that is Kalbar's goal. As some might know, approximately two thirds of the proposed mine footprint is currently grazing pasture, and the aim is to restore those areas to a similar vegetation type. However, on other areas where there is currently forestry plantation, or steeper eroded slopes or road verges, there is the opportunity to restore the types of native communities that might have existed more than 200 years ago. For example, the aim is to restore at least 200 hectares of Gippsland grassy redgum woodland at Fingerboards. If successful, this would be a great achievement because that is a nationally threatened plant community. The aim is to return as much native diversity as possible – meaning hundreds of species. The ultimate aim is to create a landscape that incorporates productive agriculture, and resilient and diverse native communities, which represents an improvement on the land's current form.
Question	Can you provide a list of mineral sands mines on dispersive soils that have been successfully rehabilitated?
Answer	The topsoil to be used in rehabilitation at Fingerboards is actually not dispersive. Some of the current subsoils ARE dispersive. They will not be used in rehabilitation, however. Other materials – overburden and some tailings – will be used as a subsoil replacement, and there has been research to identify suitable mixes. The overburdens are dispersive, but will be

	treated to reduce exchangeable sodium and to largely eliminate dispersion. More broadly, dispersive subsoils are extremely common in Australia, and have been widely encountered in rehabilitation works for construction, mining, and gas pipelines. Methods for their management are well-established.
Question	Which Victorian mineral sands mines (apart from perhaps Wemen) have used continual/progressive rehabilitation?
Answer	The other four mineral sands mines in Victoria include Douglas, Echo, Kulwin and WRP. All of these mines used progressive rehabilitation.
Question	Are you intending to use the gravel from the Haunted Hills Formation to make your roads?
Answer	Yes. Kalbar intends to use Haunted Hills Formation gravels for road base and other engineering structures related to the project.
Question	Who is responsible and what safeguards have been put in place for making good once the mine has been exhausted/sold. Even if the mine has been sold to someone else or the owners declare bankruptcy? Are funds kept aside from the outset by Kalbar or the mine's new owners to ensure that the site can be restored?
Answer	The commitments and liabilities will pass on to the new owners in the event of the project or company being sold. A rehabilitation bond is required by the Victorian government to ensure that there are funds available for rehabilitation and closure in the event that a company is unable to meet these commitments. Any new owners will be required to secure this bond in the event of the project being sold.
Question	How long will each mined area take to rehabilitate?
Answer	Some components of a rehabilitated area such as large trees may take many years to fully develop. Consequently, there has been a lot of work (successful work) to develop methods for assessing whether a rehabilitated area is on a reliable trajectory to rehabilitation success. How soon an area can be considered "rehabilitated" depends on the complexity of the ecosystem being established. A simple grassland with scattered trees may take three to five years to demonstrate successful rehabilitation, whereas a complex forest ecosystem may take ten to fifteen years – and much will depend on climate and soils.
Question	Is progressive rehabilitation legislated as a requirement in Victoria?
Answer	No.
Question	How long will it take for each mined area to rehabilitate?
Answer	This is a perennial question in rehabilitation. If your definition of rehabilitation is to achieve a 20 metre high tree, it's a very long time. What you find is done with rehabilitation generally is to monitor and where necessary apply remedial actions so that a rehabilitated ecosystem is on a very well-defined trajectory to reach the target situation. This is an area where lots of work has been done and experience gained. If a simple ecosystem, it may be 5 years, if a complex ecosystem, it may be ten to twenty years. It varies enormously, depending on what is the target. Kalbar anticipates that areas will be rehabilitated from the point of digging a hole to handing back land within about three to five years There are examples in WA where land is producing crops grass or hay within eighteen months to two years after mining. Three to five years is a realistic target, given what can be achieved elsewhere.
General	
Question	How do people get jobs at Kalbar and what is the process they should use?
Answer	People interested in employment on the Fingerboards Project can register via the Fingerboards Project website, or can call in to the Kalbar office in Bairnsdale to submit their resume. We encourage registrations to be made now. There will be 200 jobs available during the 12-month construction phase and 200 jobs available during the 15-year life of mine. Mining operations like the Fingerboards Project tend to be multi-generation opportunities for employment.
Question	When will Kalbar release a Prospectus and investment details?
Answer	As recently announced, Kalbar has received $144 million from Appian which means that the company is adequately funded through to operations. Kalbar will not be seeking to list on the

	Australian Stock Exchange in the short term and therefore is not planning on releasing a prospectus.
Question	When will Kalbar inform all the impacted properties as to what exactly is planned for those properties?
Answer	Kalbar has ongoing dialogue and correspondence, with directly-affected landholders in the project area.
Question	Will Kalbar be buying all houses within 2 kilometres of the project boundary, like Iluka did at the Douglas sand mine, due to dust, noise and light pollution?
Answer	This is not Kalbar's intention.
Question	Kalbar is already acting as if it has approval for the mine. Are people wasting their time responding to the EES? What difference can they make to any outcomes?
Answer	Kalbar believes that it's very important for people to make submissions during the exhibition period. This is the purpose of exhibition. This process allows people to submit their views which are then considered by the Panel Hearing and by the Minister for Planning.
Question	When will all landholders be informed as to the specific proposed plans for their properties?
Answer	Kalbar has ongoing dialogue and correspondence, with directly-affected landholders in the project area and landholders are aware of Kalbar's plans.
Question	If everything is all sweetness and light, why do we need an EES?
Answer	A project proponent refers their own project for EES and Kalbar believes that the Fingerboards Project needed to be considered for an EES.
Question	Why is the tailings dam not mentioned in this webinar?
Answer	The risks associated with the "tailings dam" was described under the "Water catchment values and hydrology" section. The risk is considered moderate, based on a significant consequence to the environment if the temporary tailings facility (TSF) fails, but the likelihood is rare based on the design and management of the dam.
Question	All the promises sound very good. But mining companies apply for work permits very shortly after starting construction and operations. How much confidence can the community have that the promises or assurances will be kept – especially if the project is sold?
Answer	The commitments and liabilities will pass on to the new owners in the event of the project or company being sold. A rehabilitation bond is required by the Victorian government to ensure that there are funds available for rehabilitation and closure in the event that the company is unable to meet these commitments. Any new owners will be required to secure this bond in the event of the project being sold.
Question	Given that the Victorian EES Act does not require a proponent to be truthful, why should the public believe anything that the company says in the EES?
Answer	The EES that Kalbar has undertaken has been within the guidelines of the Act and the EES has been reviewed multiple times by numerous regulators and independent technical experts. In our opinion, the EES is factually correct.
Question	Some of the early Kalbar publicity emphasised the potential yield of rare earths and titanium from the mine. Victor Hugo's presentation mentioned only zircon. What is the expected situation regarding these other products?
Answer	Zircon is the major revenue product of the Fingerboards Project. The titanium minerals – rutile and ilmenite, plus the rare earth minerals (monazite and xenotime) remain important co-products and will be found in the concentrates exported by Kalbar.
Question	Is any of the ilmenite going to be converted to titanium dioxide in Australia?
Answer	No. The ilmenite (along with the other valuable minerals) will be exported as a mineral concentrate. Companies buying this concentrate will process the concentrate further to produce ilmenite, rutile, zircon and rare earth concentrate (monazite and xenotime).
Question	Is the ilmenite going to be converted to titanium dioxide using the sulfate process or the chloride process?
Answer	Kalbar expects that about half of the ilmenite will be used in as a feedstock to the sulfate pigment process. The remaining ilmenite will be used in industrial applications such as welding electrodes.

Question	What compensation is available for people whose farming practices will be compromised by the mine, eg through re-alignment of roads or through loss of water as a result of Kalbar's dams?
Answer	Compensation for land access is outlined under the Mineral Resources Sustainable Development Act and further details can be found on the ERR website: https://earthresources.vic.gov.au/community-and-land-use/commercial-consent-agreement
Question	How can the original company for which this EES was being produced ie Kalbar Resources Ltd, suddenly change to Kalbar Operations Ltd, which is a completely new entity?
Answer	We have sought and gained approval to change the name of the entity submitting the EES.
Question	Will Kalbar Operations be releasing through the EES, the R J Robbins & Associates Scoping Study Report for the Gippsland Minerals Sands Project, December 2012 on behalf of Oresome Australia Pty which details the marketability of the Glenaladale deposit, and mining viability, including the Thorium/Uranium contamination of the Zircon Ore, and the Chrome contamination of the Rutile ores?
Answer	No. This report is not relevant to the Fingerboards Project or the EES. Kalbar is submitting all the relevant documentation as part of the EES, some 8,500 pages.