

# EAST GIPPSLAND PLANNING SCHEME

## AMENDMENT C156egip

### EXPLANATORY REPORT

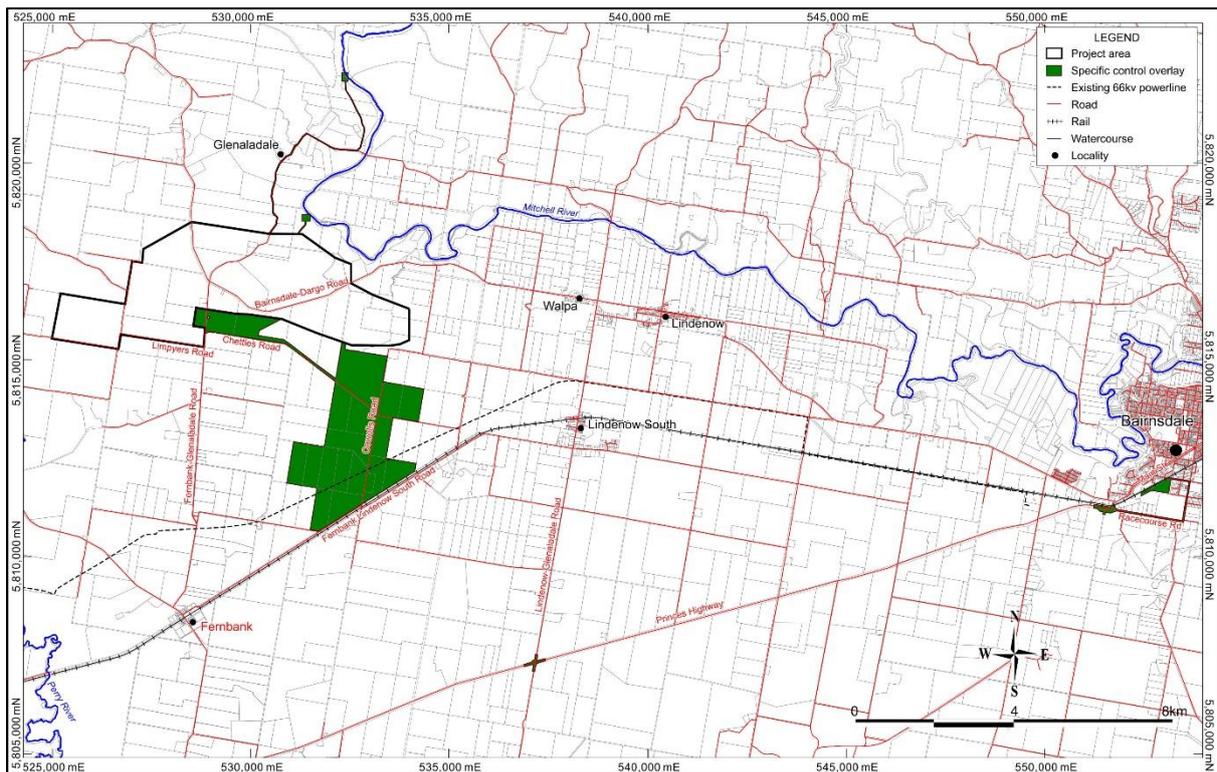
#### Who is the planning authority?

This amendment has been prepared by the Minister for Planning, who is the planning authority for this amendment.

The amendment has been made at the request of Kalbar Operations Pty Ltd.

#### Land affected by the amendment

The amendment applies to land associated with the Fingerboards Mineral Sands Project outside of the proposed mining licence area and which is coloured green on the map below.



#### What the amendment does

The amendment facilitates the use and development of facilities and infrastructure associated with the Fingerboards Mineral Sands Project that are located outside the project mining licence area including:

- Creation of a new water pipeline in or adjacent to existing road reserves to an existing pumping station to the north of the project land (Option 1) with a possible easement in or adjacent to the road reserve to accommodate it;
- Creation of a new water pipeline and a 30 metres wide easement over private land to a new pumping station constructed on private land by Kalbar (Option 2);
- Water pipeline and associated bore pumps to the south of the project land;
- Construction and use of a new road adjacent to Chettles Road, and new roads continuing south from Chettles Road over private land to the new railway siding and north from Chettles Road;
- Creation of new 66kV and 22kV powerlines adjacent to Chettles Road and the new road extensions south and north of Chettles Road;
- Creation of a new water pipeline adjacent to Chettles Road and the new road extensions south and north of Chettles Road;
- Creation of easements to accommodate the above three matters;
- Noise bunding including earthworks along sections of the new road extensions south and north of Chettles Road;
- A rail siding (one of two options) adjacent to the Bairnsdale railway line;
- Road diversions, road widenings and roadworks including intersection upgrades (local and Road Zone Category 1) and use of land for road;
- Any temporary construction works offices;
- Subdivision for the purposes of acquiring land for road and roadworks improvements and upgrades;
- Vegetation removal associated with any of the above.

The changes to the East Gippsland Planning Scheme include:

- Inclusion of the land identified as the Project Land Outside the Mining Licence Area in the Specific Controls Overlay
- Introduction of the Specific Controls Overlay into the East Gippsland Planning Scheme
- Inserts a new Schedule 1 to the Specific Controls Overlay at Clause 45.12
- Inserts a new incorporated document titled 'Fingerboards Mineral Sands Project Incorporated Document, October 2018' to the Schedule to Clause 72.04.

## **Strategic assessment of the amendment**

### **Why is the amendment required?**

The amendment is required to carry out use and development associated with the Fingerboards Mineral Sands Project which are proposed to be located outside of the proposed mining licence area. By virtue of section 42(7) of the Mineral Resources (Sustainable Development) Act 1995, planning permits are not required for the development and operation of the project undertaken within the mining licence area.

The facilities and infrastructure components of the project outside the mining licence area are subject to the requirements of the East Gippsland Planning Scheme. A number of these require planning permission or are prohibited. It is appropriate to remove this ambiguity and to include all of them in a single planning approvals package. This can be achieved through a Specific Controls Overlay.

Accordingly, an amendment is required to facilitate the approval of the project components that are currently prohibited or subject to permit in the East Gippsland Planning Scheme, to facilitate the operation of the mine.

To simplify the planning approval process and ensure a coordinated approach for the approvals, all of the project components located outside the mining licence area will be regulated by the Incorporated Document titled 'Fingerboards Mineral Sands Project Incorporated Document October 2018'.

### **How does the amendment implement the objectives of planning in Victoria?**

The amendment implements the following relevant objectives of planning in Victoria:

- *To provide for the fair, orderly, economic and sustainable use, and development of land (s.4(1)(a)).*
- *To provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity (s.4(1)(b)).*
- *To facilitate development in accordance with the objectives set out in paragraphs (a), (b), (c), (d) and (e) ((s.4(1)(f)).*
- *To balance the present and future interests of all Victorians (s.4(1)(g)).*

The amendment enables the provision of necessary infrastructure and facilities to support the development of a new mine in eastern Victoria. The mine will utilise a significant natural resource, whilst seeking to minimise ecological and genetic diversity impacts in a manner that will provide for the economic and sustainable use of the land and will provide for its fair and orderly development.

### **How does the amendment address any environmental, social and economic effects?**

This planning scheme amendment is being exhibited jointly with the Fingerboards Project Environmental Effects Statement (EES). The EES includes the environmental, social and economic effects of the activities both within and outside the mining licence area.

Chapter 9.1 of the EES identifies the biodiversity impacts of the project.

The EES includes a detailed ecological assessment of the proposed Fingerboards Mineral Sands Project, including the related infrastructure areas outside the mining licence area. The EES documents the terrestrial and aquatic flora and fauna values within the project area and identifies direct and indirect impacts on these values associated with the proposed activity.

Field surveys were undertaken across 2,774 ha of the project area, including proposed areas outside the mining licence area. The surveys sought primarily to assess the extent and condition of native vegetation communities and potential flora and fauna habitat, with consideration given to ecological communities and species of conservation significance, such as threatened, rare and migratory species. In the Detailed Ecological Investigations, ecological feature maps for the areas outside the mining licence area are provided.

Chapter 9.2 of the EES examines the ground water impacts of the project.

The area outside the mining licence area includes the borefield into the deep Latrobe Aquifer. This is proposed as an alternative to sourcing water as winterfill allocation from the Mitchell River.

The impact of groundwater extraction was modelled as makeup mine water being sourced from the Latrobe Group initially via a borefield for the first three years of mining, followed by a surface water allocation from the Mitchell River. Drawdown impacts as a result of water supply is low, since impacts are largely constrained to the Latrobe Group Gravels with only minor drawdown is predicted in the overlying Seaspray Group. Based on the impact assessment framework, predicted drawdown and mounding do not breach thresholds at any stage during or following mining in the model domain for any of the groundwater dependent ecosystem classes and, thus, environmental risks associated with the proposed mine development are considered low.

Impacts on water balances at key receptors are also investigated, with the largest water balance change expected to be no larger than 1.3 %, corresponding to a small increase in inflow and outflow reporting to the Mitchell River alluvials and associated river. Insignificant effects are predicted for the Gippsland Lakes system, Providence Ponds, the Perry River, the Woodglen ASR site and the Boisdale groundwater resource.

Residual drawdown from groundwater extraction in the first three years of mining is predicted to remain in the Latrobe Group Gravels at least ten years after cessation of mining, with a large area experiencing 1 m or more of drawdown. However, post-mining, nowhere in the Latrobe Group Gravels is more than 2 m of drawdown predicted.

Analysis of uncertainty related to the quantity of required groundwater supply was also undertaken, with extraction from the Latrobe Group being expanded from the base case assumption, of three years to 15 years. Modelling showed that, although extended extraction of groundwater from the Latrobe Group Gravels for 15 years causes extensive drawdown within this aquifer, this does not greatly affect the modelled water balance components compared to the base case scenario. This suggests that even over the long term, impacts related to groundwater extraction are constrained to the deeper aquifer system.

Chapter 9.3 of the EES details the surface water impacts of the project.

All heavy mineral concentrate managed through the rail sidings options will be containerized and will have no contact with surface water. The surface water runoff from the Fernbank East rail siding has contact with hardstand area alone and the management of water captured by the Fernbank East rail will be by the use of a sediment management dam designed to runoff from a 90th percentile, 5-day rainfall event in accordance with the International Erosion Control Association guidelines. Other rail siding options have pre-established surface water management which will continue to be utilized.

All haulage options outside the mining licence area will use sealed roads. Surface water management will be consistent with existing local practices on similar roads.

Chapter 9.4 of the EES identifies air quality impacts of the project.

Chapter 9.4 summarises the air emissions from the project and assesses the potential impact of these on air quality at the sensitive locations closest to the project area.

The Air Quality Assessment estimates emissions to air that would occur during construction and during Years 5, 8 and 12 of mining to determine potential worst case impacts on air quality in the vicinity. Dispersion modelling was used to predict ground level concentrations of air pollutants at sensitive receptor locations and across a grid of receptors around the project covering an area approximately 14km by 10km. These concentrations were compared against the air quality objectives specified in the Protocol for Environmental Management for Mining and Extractive Industries (PEM for Mining) and for indicators not specified in the PEM, objectives from other sources as agreed by EPA Victoria. The assessment also took into account meteorological and ambient air quality monitoring data from the project as required by the PEM for Mining.

The assessment indicates that the ground-level concentrations of all pollutants assessed due to construction, Year 5, Year 8 and Year 12 operations with standard and additional mitigation measures and ambient backgrounds are predicted to comply with the air quality objectives at all sensitive receptors. Indicators assessed included PM10, PM2.5, respirable crystalline silica, dust deposition, arsenic and a range of heavy metals.

The following components of the Fingerboards Project with emissions to air that are outside the mining licence area are:

- haul road to the rail siding, and
- the rail siding.

Emissions to air from transport along the haul road to the rail siding will be minimal. Emissions due to transport of materials typically occur due to spillage, tyre wear, resuspension of material on the transport route, and exhaust emissions due to fuel combustion. Concentrates are containerised at the project site, so spillage is unlikely. Emissions to air from activities at the rail siding are also likely to be minimal. Concentrates remain containerised during transport to and from the rail siding or during unloading/loading at the rail siding. Emissions to air will occur from tyre wear and fuel combustion due to incoming trucks, and exhaust emissions from trains.

The Air Quality Assessment quantifies emissions due to product transport, including exhaust emissions for the portion of proposed product haul route towards the east of the project site that was within the model domain. For key indicators such as particulates, this includes wheel generated dust (to account for tyre wear, resuspension of ambient dust etc). Compliance with the PEM objectives was predicted at all sensitive receptors in the model domain due to mining activities including product transport, including the receptors to the east of the project area that are located 80m – 300m from the product haul route. Sensitive receptors outside the model domain will be located further from project activities and therefore concentrations of air pollutants are expected to be lower than those predicted at receptors within the model domain, and compliance would be expected. For example, for the Fernbank-East rail siding option, receptors outside the model domain are located approximately 800m or more from the proposed haul route to the south of the project area, and therefore compliance with the air quality objectives would be expected.

Chapter 9.6 of the EES deals with the noise and vibration impacts of the project.

The noise and vibration assessment identifies that the most significant sources of noise and vibration outside the mining licence area are the truck transport of heavy mineral concentrate and the loading of concentrate onto trains.

Three different transport routes were assessed.

- Truck transport via Bairnsdale – Dargo Road, Lindenow Glenaladale Road to the Princes Hwy, then to Maryvale rail siding;
- Truck transport via Bairnsdale – Dargo Road, Lindenow Glenaladale Road to the Princes Hwy, then to Bairnsdale rail siding via Racecourse Road, Forge Creek Road and Bosworth Road, and
- Truck transport via Chettles Lane then south along a new road to the proposed rail siding, east of Fernbank.

The assessment of the first two options indicates that the introduction of B-Double trucks on local roads due to the project would result in an increase in activity that would be noticeable, particularly at night. However, the change in noise level is less than the relative threshold criteria provided by NSW guidance referenced in the assessment. The change in traffic noise level due to the project was below the threshold for dedicated noise mitigation under the NSW Road Policy. The project has the potential to result in increased sleep disturbance relative to that of existing heavy goods movements in the area. Accordingly, consideration has been given to the management of offsite truck noise, including instructions for safe driving practices and regular maintenance of the trucks.

The alternative Chettles Lane option for haulage includes construction of a new rail siding. There are no dwellings that are accessed from the proposed truck haul route between the mine site and the proposed rail siding. The closest and most affected receiver to the proposed road is located 200m south of the haul route.

The closest dwelling to the proposed new rail siding is approximately 1 km to the south-west. Other dwellings are located further afield, approximately 1.7 km to the south-west and 1.5 km to the north-east.

The Chettles Lane option was found to affect far fewer noise-sensitive receptors in terms of noise impacts from road transport, loading activities and rail traffic. It also presents more practical opportunities for noise mitigation, such as the provision of local screening, which is not able to be practically constructed along public roads.

The cumulative noise levels indicate that should the alternative transportation route option proceed compliance with recommended noise levels during the day and evening periods could be achieved without the requirement for dedicated noise mitigation.

However, if rail loading activities were to occur during the night, additional noise mitigation would need to be developed to reduce noise levels to comply with the recommended levels. Suitable mitigation would include the introduction of screening 2 – 3 m in height along the haul routes and around the rail siding loading and container storage area. Therefore, the predicted noise levels indicate that the proposed alternative transportation route and rail siding could be accommodated with appropriate noise mitigation within the recommended levels for all time periods.

Chapter 9.7 of the EES examines the radiation impacts of the project.

The only activity outside the mining licence area is airborne dust from mine site activities and the transport of heavy mineral concentrate.

Heavy mineral concentrate will be predominantly or totally loaded into sealed sea containers at the mine site for loading and haulage to port. No spillage or dust is anticipated from these containers during shipping. Heavy mineral concentrate shipped will have radiation levels below 10 Bq/g and consequently not need placarding.

The radiation impact assessment concluded that the most significant external radiation exposures are likely to arise from the direct handling of heavy mineral concentrate. Potentially exposed individuals include contractors involved with the transport of the material by road. A detailed risk assessment of drivers will be undertaken once the transport arrangements have been finalised, and prior to commencement of the project. Dust and passive radon and thoron monitoring would be conducted as part of the overall monitoring programme to confirm the expected low exposure levels for both workers and the members of the public.

The potential exposure pathways for the public living near the project area are also evaluated. The evaluation concludes that there should be no measurable radiological impact on members of the public from the project either during operations or in the long term. As internal doses to mine workers are likely to be below the public dose limit then any prospective dose received by an individual member of the public would also be well below the recommended dose limit. Based on dosimetric modelling, exposures to members of the public are expected to be minimal. However, prudently, an environmental monitoring programme will be in place to confirm that there is no adverse impact and to ensure the efficacy of the measures put in place to minimise any releases or prevent environmental contamination.

Chapter 9.8 of the EES examines road, traffic and transport impacts of the project.

The need for infrastructure improvements as a result of the project primarily relates to the upgrades to existing intersections and level crossings. The identified improvements to intersections has been informed by a safe systems approach to planning and design, relevant Austroads and VicRoads guidelines and with specific regard to the following key issues:

- Speed differential and traffic composition: Intersections are conflict points and common locations for crashes. The selected intersection type should have regard to the traffic composition (particularly the number of large heavy vehicles), overall demand and importantly the relative speed of vehicles at conflict points. This approach aims to minimise the potential for crashes and reduce their severity should a crash occur;
- Acceleration/deceleration lanes: Given that there will be heavy vehicle related movements over the life of the project, consideration should be given to the need for deceleration lanes approaching intersections, particularly on roads greater than 90 km/h. Provision of sufficient acceleration lanes turning onto high speed roads and steep gradients should also be considered;
- Turning treatments: As a minimum, basic right turn treatments should provide widened seal width (shoulder or lane) to allow for vehicles to pass a vehicle slowing and waiting to turn right. On high speed roads and where there is significant traffic flow, it may be appropriate to provide more than the basic right turn treatment (e.g. auxiliary turn lanes or channelisation);
- Sight distance: Given the high-speed environment of some of these roads, the horizontal and vertical geometry and other potential obstructions of vision (tree line etc.) it is important to provide approach sight distance (ASD), stopping sight distance (SSD), and safe intersection sight distance (SISD) in relation to design speed at all new intersections relating to the project;
- Approach speeds: Depending on the intersection treatment and likelihood of stopped vehicles, it may be appropriate to reduce speed limits approaching intersections to reduce risk of rear end collisions.

The proposed transport infrastructure related works (intersections and level crossing improvements) associated with the project that are outside of the mining licence area are summarised below. It is noted that the proposed upgrades are commonly associated with one or multiple project transport scenarios and sub-options.

Location	Proposed Works	Assessment Summary
Fernbank-Glenaladale Road (south) / Bairnsdale Dargo Road	Upgrade to roundabout control	Upgrade the existing intersection to roundabout control to facilitate access to the site and improve safety.
Fernbank-Glenaladale Road (north) / Bairnsdale-Dargo Road	New intersection to provide a channelised right turn treatment	Provide a right turn lane (channelised right turn) to allow through vehicles to safely pass a stationary right turning vehicle on Bairnsdale Dargo Road.
Bairnsdale-Dargo Road Diversion Alignment B (east) / Fernbank-Glenaladale Road (near Chettles Road)	Upgrade to a roundabout control	Upgrade to roundabout control to reduce the speed of approaching traffic and mitigate cross-traffic conflicts associated with B-Double movements.
Fernbank-Glenaladale Road / Limpyers Road	Upgrade intersection to provide local widening for right turning vehicles	Upgrade intersection to provide localised widening (basic right turn treatment) that allows through vehicles to safely pass a stationary right turning vehicle on Fernbank Glenaladale Road.
Princes Highway / Lindenow-Glenaladale Road	Upgrade to roundabout control	Upgrade to roundabout control to reduce the speed of approaching traffic and mitigate cross-traffic conflicts as well as reducing delays for the public travelling to and from Princes Highway in busy holiday periods.
Level Crossings - Lindenow - Glenaladale Road	Upgrade to provide boom gates	Upgrade the level crossing to provide boom gates, improve the awareness of the level crossing and enhance safety.

Location	Proposed Works	Assessment Summary
Haul Road	Haul road connecting the site to the proposed rail siding	New haul road will be a private road providing connection to the new rail siding. These treatments reduce the reliance on road for product transport eliminating many of the road safety risks relating to B-Double movements.
Rail Siding	Provision of a new rail siding at Fernbank East	New rail siding to reduce the reliance on road for product transport eliminating many of the road safety risks relating to B-Double movements.
Proposed Fernbank-Glenaladale Road / Private Access / Chettles Road	Upgrade to signalised control	Upgrade intersection to signalised control with advanced warning signs upstream of intersection location. This treatment will reduce the risk of high speed vehicle collisions of the B-double movements crossing Fernbank Glenaladale Road.
Princes Highway / Racecourse Road	Upgrade to roundabout control	Upgrade to roundabout control to reduce the speed of approaching traffic and mitigating cross-traffic conflicts as well as reducing delays for the public travelling to and from Princes Highway in busy holiday periods
Racecourse Road and Forge Creek Road	Widen shoulders through bends (horizontal curves)	Widen shoulders through the bends to provide greater separation of traffic movements and improve road safety.

In addition, it is noted that there are a number of other areas of minor works such as providing rumble strips near the site access to control dust and debris, improving line marking and providing lighting at key intersections, sealing the access to Fennings Yard as well as traffic signal works to reduce the risk of vehicles storing across level crossings.

#### *Pre-Avon River bridge scenario*

The highest risks in relation to safe roads are the inherent risks associated with driving, decreased pedestrian safety within Lindenow South and decreased road and rail safety due to the risk of B-doubles queueing back onto the Princes Drive level crossing. Several risks relating to increased risk of crashes, decreased pedestrian safety and pavement deterioration were rated as moderate.

The highest risk to the efficient road network is traffic delays along Princes Highway from roadworks during peak periods. Traffic delays from roadworks along a number of other roads was rated as a moderate risk.

#### *Post-Avon River bridge scenario – purpose-built rail siding south of the project area*

The highest risk in relation to safe roads is the inherent risk associated with driving. Under this scenario and transport option, potential safety risks relating to level crossings, pedestrians, buses and school zones will be avoided. The increased risk of crashes due to absence of road lighting at some intersections was rated as moderate.

No impacts were rated as having a high risk to the operation of an efficient road network under this scenario and transport option. Traffic delays from roadworks along a number of roads was rated as a moderate risk.

### *Post-Avon River bridge scenario – Bairnsdale rail siding*

The highest risks in relation to safe roads are the inherent risks associated with driving and decreased pedestrian safety within Lindenow South and near events at the Bairnsdale Racecourse. Several risks relating to increased risk of crashes, decreased pedestrian safety and pavement deterioration were rated as moderate.

The highest risk to the efficient road network is traffic delays along Princes Highway from roadworks during peak periods. Traffic delays from roadworks along a number of other roads was rated as a moderate risk.

Chapter 9.10 of the EES provides the visual and landscape assessment of the project.

For most activity options outside the mining licence area, the project will use existing infrastructure and present minimal additional visual impact. Upgrades to intersections will produce a need for night lighting and the Bairnsdale Rail Siding would be extended by 250m. The service corridor and optional Kalbar owned rail siding will also provide impact.

The service corridor traverses flat to slightly undulating topography. It mostly avoids areas of trees, apart from a 700 m long section to its north east, where it traverses an area of dense trees to the north of Chettles Lane.

The closest visual receptor is located approximately 200 m to the south of the service corridor. The most visible element, prior to amelioration, will be the proposed, 2 m high acoustic mound, which will be located immediately adjacent to the south side of the service corridor, and extending for approximately 600 m between the service corridor and Chettles Lane, and the proposed 66kV powerline. The next closest receptors are in excess of 1 km from the service corridor. At these distances, it is considered that any impact would be low.

Due to the powerline being mostly screened by canopy vegetation lining Chettles Lane and the partial screening of the acoustic mound by tree trunks and lower vegetation, the visual modification level will be low to moderate. Given the high level of sensitivity resulting from a residential land use, the resulting visual impact will be, in the short term, moderate to high but reduce quickly with amelioration by revegetation of the acoustic mound.

The proposed Bairnsdale rail siding option would have a low visual prominence from the closest residence and not be apparent from other locations.

The potential exists for a Kalbar owned rail siding to be constructed at Fernbank East, to transport the concentrate to the port. The siding would be constructed immediately adjacent to the existing Melbourne to Bairnsdale railway line. The potential visual impact of the option is low due to the siding being screened by existing vegetation and the low level of sensitivity of the local road.

Chapter 9.12 of the EES identifies the cultural heritage impacts of the project.

Background research, site predictive modelling and targeted field surveys were undertaken for the area outside of the mine footprint. These components of the study area included ancillary works areas and infrastructure corridors outside the mining licence area.

The investigation of these areas did not identify any previous or newly identified cultural heritage places, though several registered heritage places are located nearby. These predominantly comprise stone artefact scatters, low-density artefact distributions and culturally scarred trees.

Outside of these registered places, risk is recognised as impacting unidentified places during construction activities of proposed infrastructure options. The predictive model indicates the probability of finding Aboriginal heritage places and the proposed infrastructure is dominantly modelled in the middle or next step higher of the probability range.

Risk assessment for impacts to unregistered cultural heritage places or values are rated as moderate to high residual risk, however the previous disturbance to the ground surfaces along existing roadways and Fennings siding will likely reduce the risk to heritage at those specific locations.

Chapter 9.13 of the EES details the social and economic impacts of the project.

The social and economic impacts outside the mining licence area relate to traffic safety, noise, and visual impact.

The number of vehicle movements will be the same under the pre-Avon Bridge scenario and post-Avon Bridge scenario but the routes used by vehicles will differ under the two scenarios. In particular, prior to the Avon Bridge upgrade, a number of changes to road conditions will have the potential to increase the risk of a traffic accident. At the intersection of Lindenow-Glenaladale Road and Princes Highway, the number of heavy vehicle movements turning right from Lindenow-Glenaladale Road to Princes Highway (40 heavy vehicles per day) is likely to cause excessive slowing of traffic and safety concerns for general traffic, especially during school holiday periods and long weekends. The project is also expected to increase the daily volume of heavy vehicle traffic in Lindenow South. Under the pre-Avon River Bridge scenario traffic movements through Lindenow South will increase by 108% (80 vehicle movements). This is expected to result in an increased risk of pedestrians being involved in a crash.

One option under the post-Avon River bridge scenario is to transport the product via Bairnsdale-Dargo Road and onto Lindenow-Glenaladale Road before joining the Princes Highway and travelling to the existing Bairnsdale rail siding. The volume of heavy vehicle traffic along three key roads in Bairnsdale (Racecourse Road, Forge Creek Road and Bosworth Road) will increase by 143%, 14% and 27% respectively under this scenario.

One of the options associated with the post-Avon Bridge scenario (proposed rail siding at Fernbank East) will involve minimal interaction with public roads and as such, impacts are likely to be reduced. Potential impacts relating to pedestrians and school bus travel in and about Lindenow South will also be avoided.

In relation to noise issues from project-related vehicle movements, the noise modelling predicts that noise levels will be between 1 dB and 7 dB higher than base noise levels at the three measurement sites in Lindenow and Walpa, both of which are along the heavy mineral concentrate transport route.

Modelling of traffic noise levels along the heavy mineral concentrate transport route also indicates that noise levels are expected to be below the 60 L<sub>Amax</sub> to 65 L<sub>Amax</sub> sleep disturbance criteria. Given this, the proposed increase in traffic from the project is unlikely to cause awakening for residents along the heavy mineral concentrate transport route.

Dust deposition rates in areas outside the model domain used in the assessment are expected to be lower than dust deposition rates predicted at the sensitive receptors. Based on this, residents in the settlements and towns within 10 km of the project area are considered unlikely to experience a change in lifestyle from dust deposition associated with the project.

The proposed Bairnsdale rail siding will have a low visual prominence from the closest residence and not be apparent from other locations.

### **Does the amendment address relevant bushfire risk?**

The 'Fingerboards Mineral Sands Project Incorporated Document, October 2018' requires the preparation of a Fire Management Plan to address fire risk.

### **Does the amendment comply with the requirements of any Minister's Direction applicable to the amendment?**

The amendment is consistent with the Ministerial Direction on the Form and Content of Planning Schemes under section 7(5) and the Ministerial Direction No. 11 Strategic Assessment of Amendments under section 12(2)(a) of the Planning and Environment Act 1987 (the Act).

### **How does the amendment support or implement the Planning Policy Framework and any adopted State policy?**

The amendment forms one of a package of approvals applying to the Fingerboards Mineral Sands Project. The project as a whole has been assessed against the Planning Policy Framework although the amendment applies only to those works and infrastructure outside of the mining licence area.

#### Clause 11.01-1S: Settlement and Clause 11.01-1R: Settlement - Gippsland

The Gippsland Regional Growth Plan identifies earth resources and in particular mineral sands mining as contributing to the economic development of the Gippsland region and adding to its economic diversity.

#### Clause 12.01-1S: Protection of Diversity

The project area predominantly comprises cleared pasture and timber plantations. Isolated areas containing scattered remnant vegetation exist. The impacts of the project on flora and fauna values and policies are assessed in detail in the flora and fauna impact assessment prepared for this EES.

#### Clause 12.01-2S: Native Vegetation Management

The impact of the project on native vegetation is assessed in detail in the flora and fauna impact assessment prepared for this EES. Native vegetation removed by the project will be offset so that no net loss is achieved, consistent with the policy outcome of achieving no net loss where native vegetation is required to be removed.

#### Clause 13.02-1S: Bushfire Planning

The 'Fingerboards Mineral Sands Project Incorporated Document, October 2018' requires the preparation of a Fire Management Plan.

#### Clause 13.05-1S: Noise Abatement and Clause 13.06-1S: Air Quality

The project primarily relies on the remote character of its location to ensure noise and air emissions impacts associated with mining and processing operations are within acceptable limits (for dwellings). Where noise and air quality criteria are not met, mitigation measures, such as noise bunding or additional dust suppression, will be employed. Should further measures be required, options will be investigated (in consultation with landholders) for relocating landholders affected by project activities so that accepted noise and air quality standards are maintained in accordance with the policies.

Options may include temporary or permanent relocation of residences or residents, or scheduling project activities to minimise impacts to residents.

#### Clause 14.01-1S: Protection of Agricultural Land

The project area footprint is approximately 1,675 ha. At full operation it is expected that, at any given time, the area disturbed within the project area will be up to 360 ha and incorporate the active mining area, tailings disposal areas, and infrastructure. An additional area will be out of production for up to a further two years while crops develop to full production. The total area out of agricultural production at any time will average 443 ha with a maximum of 569 ha.

The project life is expected to be 20 years including approximately two years for construction and commissioning.

It is expected that any one area of land that is mined will be out of agricultural production for a period of 3 - 5 years. That is, at full mine production at any one time up to 569 ha of land will be withdrawn from agricultural production for up to 5 years (due to mining activities). This includes the approximate area occupied by project infrastructure such as the initial fine tailings storage facility, processing infrastructure, maintenance infrastructure, water storage dams, topsoil storage and site based services arterials which will remain in place for up to 20 years.

Land used for accommodating mining infrastructure during the nominal design life of the project will be rehabilitated after the infrastructure is decommissioned and returned to agricultural production or preferred land use as described in the rehabilitation chapter of the EES and the Draft Mine Rehabilitation and Closure Plan (Kalbar 2019).

The total net economic benefit of the project is estimated to be \$392.4 million in net present value terms and includes the direct provision of approximately 200 full-time jobs during operations (BAEconomics 2019). The NPV estimation includes the estimated indirect loss of income due to the temporary displacement of agricultural land.

Therefore, the amount of agricultural land temporarily removed from agricultural production for the purpose of mineral production is relatively minor in a local, regional and national context.

#### Clause 14.02-1S: Catchment Planning and Management and Clause 14.02-2S: Water Quality

The Fingerboards Mineral Sands Project Groundwater and Surface Water Study deals with measures to protect the beneficial uses of waterways in the project area.

#### Clause 14.03-1S: Resource Exploration and Extraction

The planning approval process (i.e., preparation of an EES) being followed for the project is consistent with relevant legislation. The objective seeks to encourage exploration and extraction of natural resources provided it is in accordance with acceptable environmental standards. Planning policy encourages mineral sands extraction because of the positive economic and wealth creation benefits derived from their extraction.

The EES will outline appropriate buffers between project activities and sensitive land uses, such as housing.

## **How does the amendment support or implement the Local Planning Policy Framework, and specifically the Municipal Strategic Statement?**

One of the themes for rural areas in the East Gippsland Planning Scheme Municipal Strategic Statement (MSS) is the role played by agriculture in underpinning the rural economy. The economic benefits of mining the Glenaladale deposit will be greater than the economic loss of temporary withdrawal of the land from dryland agriculture resulting in an overall economic net community benefit.

The MSS at Clause 21.06-4 seeks to encourage the development of mineral resources in appropriate areas presumably on the basis of the economic benefits which are expected to arise from the mining of mineral resources.

## **Does the amendment make proper use of the Victoria Planning Provisions?**

The amendment makes proper use of the Victoria Planning Provisions (VPP). The inclusion of the project outside the mining licence area in a Specific Controls Overlay and in the Incorporated Document 'Fingerboards Mineral Sands Project, October 2018' at Clause 45.12 and its inclusion within the Schedule to Clause 72.04, are an appropriate means to provide for the approval of the various project components that sit outside the mine licence area but form an integral part of the Project.

More specifically, Clause 45.12 and Clause 72.04 were selected as the most appropriate tools available in the VPP given:

- The Fingerboards Mineral Sands Project is considered to represent an 'extraordinary' circumstance. It is a one-off mining project;
- Clause 45.12 maintains the existing zoning of the land and applies some site specific exemptions, rather than changing the zoning. The Specific Control maintains the current permit triggers as they apply to any other situation not associated with the project. For example, the control will not change how land can be used and developed under the planning scheme for activities not associated with the project;
- The use of an incorporated document provides the opportunity to 'streamline' the range of planning approvals within one planning mechanism;
- There is an established precedence for the use of incorporated documents for a range of large scale infrastructure projects in Victoria, including projects requiring approval for a range of land uses and linear infrastructure.

## **How does the amendment address the views of any relevant agency?**

Extensive consultation was undertaken with relevant agencies through the preparation of the EES. The amendment is not expected to result in the need for any new referrals under section 55 of the Act.

In accordance with Minister's Direction on the Preparation of and Content of Amendments that may Significantly Impact the Environment, Amenity and Human Health, the views of the Environment Protection Authority (EPA) have been sought in the preparation of the Environment Effects Statement and the planning scheme amendment. These comments have been provided to Kalbar and the Technical Reference Group. The EPA will also be notified about the exhibition of both the EES and the planning scheme amendment and invited to make a submission to both.

## **Does the amendment address relevant requirements of the Transport Integration Act 2010?**

The amendment is not likely to have a significant impact on the transport system.

## **Resource and administrative costs**

### **What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?**

The new planning provisions are not expected to have any unnecessary impact on the administrative costs of the responsible authority.

### **Where you may inspect this amendment**

The amendment is available for public inspection, free of charge, during office hours at the following places:

East Gippsland Shire Council Service Centres:

- Corporate Centre, 273 Main Street, Bairnsdale
- Service Centre, 24 Service Street, Bairnsdale
- 18 Mechanics Street, Lakes Entrance
- 179 Day Avenue, Omeo
- 1 Ruskin Street, Orbost
- 55 The Esplanade, Paynesville
- 70 Maurice Avenue, Mallacoota (Monday to Tuesday 10.00 am - 2.00 pm, Wednesday to Friday 2.00 pm - 5.00 pm).

The amendment can also be inspected free of charge at the Department of Environment, Land, Water and Planning website at [www.planning.vic.gov.au/public-inspection](http://www.planning.vic.gov.au/public-inspection).