

Fingerboards Mineral Sands Project
Environment Effects Statement Information Brochure
Economic



What did we study and why?

The report was prepared by BAEconomics.

It addresses the following EES scope requirements:

- Assess the potential economic effects (beneficial and adverse) which could result from the project
- Assess the economic costs and benefits from construction and operation of the project, and temporary and permanent impacts on agriculture, forest resources, tourism and businesses.

A mining project should only proceed if the benefits to the community from the project exceed the costs that the project imposes on society.

Cost benefit analysis is a widely accepted economic methodology for determining whether a project will result in net benefits to the community.

Cost benefit analysis is a technique for assessing the economic merits of an initiative from the perspective of Victoria as a whole. It 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' in economic terms.

Cost benefit analysis assesses the net benefits over the life of the project. If the sum of total benefits exceeds the sum of total costs the project should proceed.

DIRECT BENEFITS	INDIRECT BENEFITS	INDIRECT COSTS
<p>The net benefits that accrue to Victoria from the direct operations of the proposed mine include:</p> <ul style="list-style-type: none"> • Net producer surplus attributable to Victoria • Royalties payable • Company tax attributable to Victoria 	<p>The net benefits that are generated for parties that economically interact with the proposed mine include:</p> <ul style="list-style-type: none"> • Net economic benefits to landowners • Net economic benefits to Victorian employees • Net economic benefits to Victorian suppliers 	<p>Social costs generated by the proposed mine, borne by the Victorian community include:</p> <ul style="list-style-type: none"> • Net environmental, social and transport-related costs • Net public infrastructure costs • Loss of surplus to other industries

From the community’s perspective, any private return the mining company makes from the project is not counted. What is important from the community’s perspective on the benefits side is the tax revenue generated by the project that is paid to the government.

Further details of the impact assessment are available in **Chapter 9** of the EES: **Environmental and socioeconomic impact assessment**.

The full report of the Economic Impact Assessment is available as part of the Socioeconomic Impact Assessment at **Appendix A018** of the EES.

Related studies



What did the study find?

Benefits

The proposed development is estimated to provide a net benefit to Victoria estimated to be 392.4 million in net present value (NPV) terms. This is comprised of \$158.9 million and \$234.4 million in direct and indirect benefits respectively.

The indirect benefit includes \$50.0 million (in NPV terms) of net economic benefits to Victorian workers (excluding contractors). The benefit is derived from the increased wages earned at the project, when compared to alternative employment. The indirect benefit also includes \$209.4 million (in NPV terms) of net economic benefit to Victorian suppliers (excluding suppliers to contractors).

External costs

The assessment includes estimates of external costs associated with the project, including agricultural impacts, housing, public infrastructure, and costs associated with mitigating visual, noise and environmental impacts.



The level of greenhouse gas emissions resulting from the Project is measured by the:

1. Scope 1 emissions, the direct emissions from the project
2. Scope 2 emissions, the indirect emissions generated as a result of the Project purchases.

The project will also generate \$0.85 million in incremental indirect costs (greenhouse gas emissions and removal of agricultural land due to mining).

Overall economic impact

Over its 15 years of operations, 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.

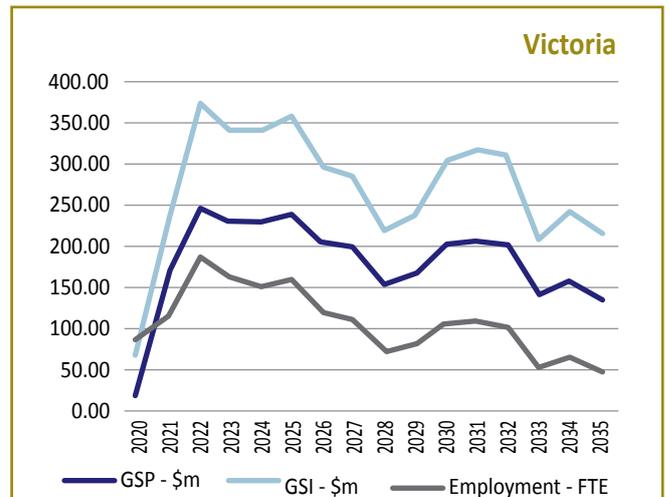
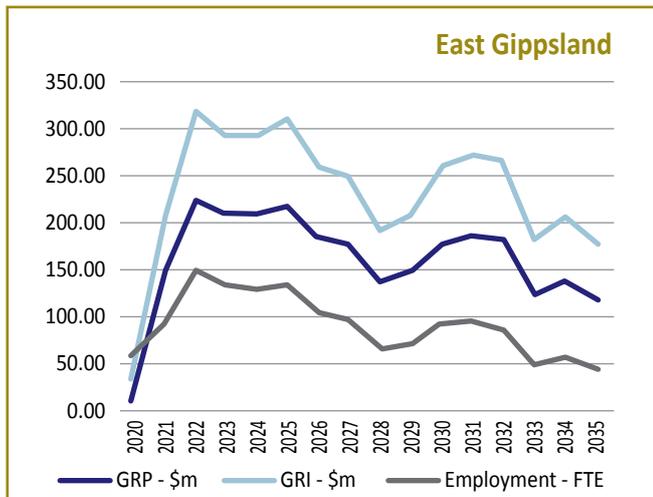
Over the life of operations, Victorian Gross State Product (GSP) is projected to increase by just under \$1.6 billion and Gross State Income (GSI) by \$2.4 billion.

SUMMARY OF NET BENEFITS ATTRIBUTABLE TO VICTORIA (NPV 7% DISCOUNT RATE)

COSTS	NPV*	BENEFITS	NPV*
PRODUCTION RELATED		PRODUCTION RELATED	
		Company tax, producer surplus, royalties	158.9
		Net economic benefit to existing landholders	0.0
		Net economic benefit to local workers	25.0
		Net economic benefit to local suppliers	209.4
Total production related	0	Total production related	393.3
EXTERNALITIES (COSTS)		EXTERNALITIES (OFFSETS[^])	
Air quality	1.6	Air quality monitoring	1.6
Greenhouse gas emissions	0.01	N/A	0.0
Visual amenity	9.8	Visual amenity - bund construction	9.8
Transport impact	9.6	Transport impact - transport controls	9.6
Net public infrastructure cost	0.0	Net public infrastructure cost	0.0
Surface water impact	19.4	Surface water - infrastructure	19.4
Residual value of land	0.0	N/A	0.0
Biodiversity impact	4.1	Biodiversity offsets	4.1
Noise impact	0.1	Noise monitoring	0.1
Loss of surplus to other industries	0.8	N/A	0.0
Water	4.7	Water licences	4.7
Aboriginal cultural and historical heritage	0.0	N/A	0.0
TOTAL EXTERNALITIES	50.1	TOTAL EXTERNALITIES	49.3
GRAND TOTAL	50.1		442.6
NET ECONOMIC BENEFITS	392.4		

*A\$ million real 2018

[^]These costs are included in the operating and capital cost of the project



Above: Projected additional regional and state-wide economic gains over time.

Being accountable for what we do

We have established an Environmental Management Framework (EMF) with clear accountabilities for managing and monitoring environmental effects and hazards associated with construction, operation, decommissioning, rehabilitation and post-closure phases of the project in order to achieve acceptable environmental outcomes.

The EMF is contained in **Chapter 12** of the EES.

Kalbar has committed to maximising economic opportunities for the local area and Gippsland region from the project. The company will continue to engage and work collaboratively with industry bodies such as Industry Capability Network (ICN) and Growing Regional Opportunities for Work (GROW) Gippsland to identify and build the capacity of local suppliers to supply goods and services to the project.

Kalbar has also committed to continuing to engage and work collaboratively with education and training providers and employment and apprenticeship support networks that operate in the Gippsland region to promote and support local employment on the project.

Contact us

To download the full technical studies and the Environment Effects Statement, go to:
www.fingerboardsproject.com.au

If you have any questions about the technical studies, the EES or how to make a submission, please contact us.



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