Australian Government
Department of the Environment and Energy

Title of Proposal - Fingerboards Mineral Sands Project

Section 1 - Summary of your proposed action

Provide a summary of your proposed action, including any consultations undertaken.

1.1 Project Industry Type

Mining

1.2 Provide a detailed description of the proposed action, including all proposed activities.

The Fingerboards Mineral Sands Project is a proposal to develop the Glenaladale mineral sands deposit (Glenaladale deposit) in East Gippsland. The Glenaladale deposit straddles East Gippsland Shire and Wellington Shire, however the project area is located entirely in East Gippsland Shire.
The Glenaladale deposit contains an estimated 2.7 billion tonnes of mineralised sand and 53 million tonnes (Mt) of heavy minerals including around 12 Mt of zircon. The Fingerboards Mineral Sands Project will mine approximately 10% of the Glenaladale deposit over 20 years. Kalbar Resources will use open cut mining methods to extract 200 Mt of ore from the eastern part of the Glenaladale deposit to produce 6 Mt of heavy mineral concentrate (HMC). It is envisaged that, due to the size of the deposit, mining will continue in other areas of the deposit following the closure of the Fingerboards Mine.
The ore will be fed to a mining unit plant (MUP) for slurrying and pumping to the wet concentrator plant (WCP). There the slurried ore will undergo initial onsite processing to produce HMC. The HMC will be exported for further processing into commercial products such as zircon and rutile.
All overburden will be returned to the mined-out void, with the majority directly returned as mining progresses. Temporary stockpiling will occur until the mine void is established and progressive reinstatement and rehabilitation has commenced. Tailings and non-economic minerals will be placed in the mined out void and in an off-path tailings storage facility (TSF). Rehabilitation will occur progressively during mining on the reinstated land surface behind the advancing open cut. The rehabilitation and closure works aim to resemble the landscape prior to mining.
Key components of the project are likely to include the mineral sands mine, and infrastructure for primary processing for the production of HMC. Transport of the HMC will be to a port (Port Anthony is currently the preferred option) or by rail (Port of Melbourne) for export overseas. Descriptions of project components are provided below.
Construction
Construction activities at the mine site are expected to involve:
Establishment of infrastructure (site access and haul roads, site office and workshop, power and water, WCP) and the working mine area.
Transport of construction equipment and materials to site.
Erection of a fence around the mine site to exclude unauthorised access.
Removal and stockpiling of topsoil and subsoil for reuse in rehabilitation.

Construction of site drainage and water management systems including perimeter drains, oil interceptors and sedimentation ponds.
Clearing of vegetation and establishment of mine site.
Construction and upgrade of mine site access tracks and internal roads.
Transport and assemblage of the processing plant components (MUP, WCP and associated components including the truck loading facility).
Construction of additional mine site infrastructure including a site office and amenities, water storages and fuel storage tanks, tailings storage facility and mining contractor workshops and warehouse facilities.
Reinstatement and rehabilitation of temporary work sites and laydown areas.
Installation and connection of powerlines and water infrastructure and facilities.
Operations
Mining will be conducted 24 hours/day, 365 days/year. Haulage of HMC from the mine site to the port will be conducted 24 hours/day. It is likely that there will be 2 x 12 hour shifts during normal operations. Key shutdown activities and major maintenance periods will require additional contractors and personnel. Key operational activities associated with the project include:
Removal of topsoil and overburden using conventional earthmoving equipment.
Initial wet gravity processing of mined ore in a WCP to produce heavy mineral concentrate.
Management of tailings by either co-disposal to the mine void or off-mine path co-disposal to a TSF.
Transportation of HMC by truck via the state road network to Port Anthony or by rail to Port of Melbourne.
Progressive rehabilitation of the mined areas and other disturbed areas.
Decommissioning
Key decommissioning activities associated with the project will include:
Resale and/or reuse of serviceable equipment and demolition and disposal of remaining plant and equipment to an appropriately licensed facility.
Decommissioning of associated infrastructure (i.e., buildings, haul roads and other pavements, water pipeline and powerlines, fencing, fuel storage etc.) and disposal to appropriately licensed facility.
Backfilling of mine void and reinstatement of landforms.
Rehabilitation of project area and return to former land use.

1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.

Area	Point	Latitude	Longitude
Project area	1	-37.806882200468	147.2843180593
Project area	2	-37.796980805307	147.28680714927
Project area	3	-37.799218907986	147.30526074729
Project area	4	-37.789519973323	147.30732068381
Project area	5	-37.789859118394	147.30980977378
Project area	6	-37.785992772313	147.31032475791

Area	Point	Latitude	Longitude
Project area	7	-37.780141995593	147.32384309134
Project area	8	-37.783008086117	147.34638437591
Project area	9	-37.78356772396	147.35475286803
Project area	10	-37.788460134944	147.36487016044
Project area	11	-37.789833682568	147.3693226274
Project area	12	-37.794310253161	147.36951038203
Project area	13	-37.796887549557	147.37579747996
Project area	14	-37.799863197701	147.38649412951
Project area	15	-37.807195835988	147.38622054419
Project area	16	-37.808145211064	147.38359197936
Project area	17	-37.808458841219	147.38101705871
Project area	18	-37.808484270632	147.36995562873
Project area	19	-37.802787863253	147.34935626349
Project area	20	-37.801295874427	147.33939990363
Project area	21	-37.801465420129	147.33699664435
Project area	22	-37.800515959182	147.32828482947
Project area	23	-37.79987167516	147.32420787177
Project area	24	-37.805941285917	147.3038659986
Project area	25	-37.809467534578	147.30279311499
Project area	26	-37.806890677121	147.28425368628
Project area	27	-37.806890677121	147.28425368628
Project area	28	-37.806890677121	147.28433951697
Project area	29	-37.806653330464	147.28425368628
Project area	30	-37.806882200468	147.2843180593

1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland).

The project area is located on a low-hill landform with a relief of 30 to 90 m. The central portion of the project area is dominated by a tableland which is incised in the west by the headwaters of the Perry River catchment. To the east of the project area there are sharply rising river terraces, eroded gullies and waterways that drain into the Mitchell River. Several kilometres to the north of the project area the undulating terrain transitions to steeper hill landforms at the foot of the Victorian Alps with a relief of around 300 m.

The landscape within the project area has been modified due to agricultural, horticultural and forestry activities. The key land uses within the project area include dryland grazing (sheep and cattle), hobby farms, plantations, disused gravel borrow pit, and rural residential properties. In the vicinity of the project area land uses include dairy, irrigated horticulture, state forest, recreational and commercial uses in small rural towns.

Two residential dwellings are located within the project area. There are nine residential

properties within a 1 km radius of the project area. This number of neighbouring properties was derived from a review of aerial imagery. This will be confirmed during the approval process. There is also a range of agricultural infrastructure (e.g. water tanks, sheds, access roads, fences and channels) located within the project area. Other built structures within the project area include a communication tower, powerlines and underground telecommunications cables. The project area is accessed from the Princes Highway via the Lindenow–Glenaladale Road and Bairnsdale-Dargo Road through Lindenow South and Walpa or the Fernbank–Glenaladale Road through Fernbank.

Bairnsdale is the main service centre of East Gippsland and is located approximately 20 km east of the project area. Other settlements and towns within a 10 km radius of the project area include Stockdale, Iguana Creek, Fernbank, Walpa, Lindenow, Lindenow South, Woodglen and Wuk Wuk.

1.6 What is the size of the development footprint or work area?

1,400 hectares

1.7 Is the proposed action a street address or lot?

Street Address

1265 Fernbank-Glenaladale Road
Fernbank VIC 3864
Australia

1.8 Primary Jurisdiction.

Victoria

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

No

1.10 Is the proposed action subject to local government planning approval?

Yes

1.10.1 Is there a local government area and council contact for the proposal?

No

1.11 Provide an estimated start and estimated end date for the proposed action.

Start date 11/2018

End date 11/2040

1.12 Provide details of the context, planning framework and State and/or Local government requirements.

The project area is located entirely within the East Gippsland Shire. The road transport routes to Port Anthony traverse three local government areas, East Gippsland Shire, Wellington Shire and South Gippsland Shire. The road portion of the proposed rail transport route passes through three local government areas: East Gippsland Shire, Wellington Shire and La Trobe City Council, where the HMC will be loaded onto rail at Maryvale siding yard. No project works are expected to be required at Port Anthony within the South Gippsland Shire.

The project area is covered by the East Gippsland Planning Scheme. The predominant zoning is Farming Zone (FZ1). The Bairnsdale–Dargo Road, which passes through the project area is zoned Road Zone Category 1 (RDZ1). The state forest to the northwest of the project area, reserves to the west and Perry River and Mitchell River frontage are zoned Public Conservation and Resource Zone (PCRZ).

Land within the project area is subject to the following overlays:

· Erosion Management Overlay (EMO) applies to much of the east and northeast of the project area.

· Vegetation Protection Overlay (VPO) applies to parts of some of the road reserves within the project area.

· Environmental Significance Overlay (ESO51) applies to patches of vegetation within road reserves in and adjacent to the project area.

· Wildfire Management Overlay (WMO) applies to the softwood plantations located in and adjacent to the eastern part of the project area.

· Environmental Significance Overlay (ESO38) applies to the Mitchell River frontage east of the project area.

The project is expected to require State and Commonwealth approvals under the following legislation.

Mineral Resources (Sustainable Development) Act 1990. The project will require approvals such as:

· Mining licence.

· Approved mining work plan.

· Restricted Crown land consent.

· Work authority to commence mining.

In order to obtain a work authority, the following requirements need to have been met:

· Minister's assessment of an EES or an approved planning permit.

· Written consent (or compensation agreements) from private landowners.

· Rehabilitation bond.

· An approved cultural heritage management plan (CHMP).

· An approved work plan.

· Public liability insurance.

· *Environment Protection and Biodiversity Conservation Act 1999.* The project is likely to be determined a controlled action and require environmental assessment and approval under Commonwealth guidelines or an accredited Victorian process.

1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders.

Kalbar has conducted formal and informal stakeholder engagement including the following:

· Community meetings (17 November 2014, Mossiface Hall; 10 December 2014, Glenaladale Hall; 11 April 2015, Glenaladale Hall; 25 July 2016, Glenaladale Hall; 29 November 2016, Lindenow Hall, 30 November 2016).

· Email updates to landowners and community meeting attendees in 2014, 2015, 2016 and 2017.

· Personal discussions through telephone calls, emails and visits to landholder's properties to arrange exploration drilling and land access.

· Meetings with the Gunaikurnai Land and Waters Aboriginal Corporation to discuss exploration activities and tenement management.

· Introductory meetings, calls or emails with local MPs, councillors, local government representatives and community groups including Rotary and Lions Club.

· Presentation at the East Gippsland Shire Council mining day in March 2014.

· Letterbox drops of project information to areas adjacent to initial exploration drilling

program in June 2014.

· Media release about the community meetings, exploration drilling program, Lindenow Water Security Grant, granting of Retention Licence and establishment of Bairnsdale office.

· Information bulletin on project status in September 2016.

· Interviews with ABC Radio Gippsland, Weekly Times, Bairnsdale Advertiser and Stock and Land about the community meetings and exploration drilling program in 2014, 2015 and 2016.

· Fingerboards Mineral Sands Project stand at East Gippsland Field Days 2016.

· Fact sheets, website, project email address, 1800 number for enquiries about Fingerboards Mineral Sands Project.

· Meetings with local businesses including major irrigators.

Government agencies and stakeholder groups consulted to date include:

· Department of Economic Development, Jobs, Transport and Resources (DEDJTR).

· Aboriginal Victoria (AV).

· Department of Environment, Land, Water and Planning (DELWP).

· East Gippsland Shire Council.

· Wellington Shire Council.

· Gunaikurnai Land and Waters Aboriginal Corporation.

· Southern Rural Water.

· Minerals Council of Australia.

· East Gippsland Water.

· East Gippsland Catchment Management Authority.

· Gippsland Ports

· Latrobe Valley Authority

· Gippsland Water

As required under the *Environment Effects Act 1978,* Kalbar has developed a draft Consultation

Plan which sets out the strategic framework that underpins the communication and engagement requirements for the project and outlines the specific actions to be taken throughout the development of the project. The plan outlines the methods and materials to be used during the engagement process and will remain a working document that will continue to be updated as the project progresses. Once dates and activities are confirmed, a formal schedule of activities with accountabilities will be developed and incorporated into the plan to facilitate the appropriate dissemination of information and provide stakeholders with the opportunity to communicate concerns.

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project.

An EES referral has been submitted to DELWP and the Minister has determined that an EES will be required under the *Environment Effects Act 1978*. This requires:

Preparation of an impact assessment - A decision as to whether an environment effects statement (EES) or other form of assessment is required is made by the Victorian Minister for Planning based on information provided in an EES referral under the *Environment Effects Act 1978* (Vic.). The EES referral has been submitted to the Department of Environment, Land, Water and Planning (DELWP) for consideration and the Minister has determined that the project will require an EES.

EES Scoping Requirements – the EES scoping requirements will identify the issues and aspects to be addressed by Kalbar and its consultants in preparing the EES. DELWP will prepare draft scoping requirements for the EES based on the EES study program provided by Kalbar and Coffey. Department of the Environment and Energy (DoEE) will have input to the draft guidelines if approval is required under the EPBC Act and the bilateral agreement between the Commonwealth and Victorian Governments is invoked. Draft scoping requirements are placed on exhibition and the public and regulatory agencies have the opportunity to make a written submission of the adequacy and scope of the terms of reference. Submissions are taken into consideration by DELWP in finalising the EES scoping requirements.

Public Inquiry – the Minister for Planning may appoint an inquiry panel to evaluate the effects of the project by reviewing the EES and public submissions. The preparation and management for, and attendance at the public inquiry would include the following tasks:Engagement of expert witnesses.Preparation of expert witness statements and other documentation.Attendance at public inquiry.Preparation of summary outcomes, issues and actions resulting from inquiry.

Ancillary Approvals – Consultation with relevant authorities and the outcomes of specialist studies may determine that other permits and approvals are required for the project. These may include:

Licence to take and use water and a works on a waterway permit as required under the *Water Act 1989*.

Planning permit(s) and / or planning scheme amendments may be required for project activities that are not related to mining or minerals processing under the *Planning and Environment Act 1987* such as road diversions or upgrades.

An approved CHMP and consent to disturb Aboriginal heritage sites under the *Aboriginal Heritage Act 2006*.Approval to disturb known historic sites in accordance with the Victorian *Heritage Act 1995*.

Radiation management and operation licence under the *Radiation Act 2005* and Radiation Regulations 2007.Dangerous Goods Licence under the *Dangerous Goods Act 1985.*

Licence to discharge air emissions and wastewater disposal under the *Environment Protection Act 1970.*

A works approval and licence for onsite bulk storage of diesel fuel under the *Environment Protection Act 1970*.

An approved native vegetation offset management plan under the *Planning and Environment Act 1987.*

Licences or registration under Chapter 5 Hazardous Industries Part 5.2 Major Hazard Facilities of the *Occupational Health and Safety Regulations 2007*.

Road closure, diversion and/or opening permits under the *Road Management Act 2004.*

Permit to control wildlife under the *Wildlife Act 1975*. Permit to take flora and fauna under the *Flora and Fauna Guarantee Act 1998*.

1.15 Is this action part of a staged development (or a component of a larger project)?

Yes

1.15.1 Provide information about the larger action and details of any interdependency between the stages/components and the larger action.

Any subsequent development of the Glenaladale resource will be completed under a separate approval. This proposal is for 20 years of mining activity.

1.16 Is the proposed action related to other actions or proposals in the region?

No

Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The interactive map tool can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

• Profiles of relevant species/communities (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;

• Significant Impact Guidelines 1.1 – Matters of National Environmental Significance;

• Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies.

2.1 Is the proposed action likely to impact on the values of any World Heritage properties?

No

2.2 Is the proposed action likely to impact on the values of any National Heritage places?

No

2.3 Is the proposed action likely to impact on the ecological character of a Ramsar wetland?

Yes

2.3.1 Impact table

Wetlands	Impact
Gippsland Lakes Ramsar Site	Located 25 km downstream of the project area, this site will receive both groundwater and surface water discharge from systems emanating from or passing through the project area. Potential impacts include alteration/degradation of water quality due to sedimentation, runoff and altered flow regimes

Wetlands	Impact
	due to changes in landscape topography and drainage.
Mitchell River	The project will require significant volumes of water for activities such as ore processing, dust suppression, washdown, as well as for onsite drinking water and ablutions. Initial water requirements for construction and start-up are likely to be between 3 to 4 GL. The source of water and volume requirements for the project will be confirmed during the impact assessment stage of the project. Potential water sources include groundwater and winter-fill from the Mitchell River. A project water balance will be derived that outlines predicted water use and discharge volumes, as well as reticulation and recycling of water where appropriate. Flood events and surface drainage may result in wastewater discharge or erosion and sediment impacts are on the Mitchell River. These include alteration/degradation of water quality due to sedimentation, runoff and altered flow regimes due to changes in landscape topography and drainage.

2.3.2 Do you consider this impact to be significant?

No

2.4 Is the proposed action likely to impact on the members of any listed threatened species (except a conservation dependent species) or any threatened ecological community, or their habitat?

Yes

2.4.1 Impact table

Species	Impact
Gippsland Red Gum (Eucalyptus tereticornis subsp. Mediana) Grassy Woodland and Associated Native Grassland Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains Swamp everlasting (Xerochrysum palustre) Dwarf kerrawang	2.84 hectares of Gippsland Red Gum (Eucalyptus tereticornis subsp. Mediana) Grassy Woodland and Associated Native Grassland ecological community has been recorded within the project area. Seasonal Herbaceous Wetlands (Freshwater) of the

Species	Impact
(Commersonia prostrata) Gaping leek-orchid (Prasophyllum correctum)	Temperate Lowland Plains, was predicted to occur within the project area or within 10 km (DOEE, 2017). Field surveys for the project did not record this ecological community (EHP, 2017). A total of 6 swamp everlasting species, 11 dwarf kerrawang species and 4 gaping leek-orchid species were recorded during field surveys for the project (EHP, 2017). Potential impacts on flora resulting from development of the project include direct or indirect impacts. These issues can be grouped into the following: • Habitat loss from vegetation clearance. • Habitat degradation through the establishment of invasive species or the introduction of pathogens, edge effects, deposition of eroded sediments, or from contamination caused by accidental spills of hazardous materials. • Reduced abundance or diversity of flora populations from vegetation clearance. It is estimated that the maximum area of remnant vegetation to be cleared for the development of the project is 148 ha.
Swift parrot (Lathamus discolor) Painted honeyeater (Grantiella picta) Grey-headed flying-fox (Pteropus poliocephalus) New Holland mouse (Pseudomys novaehollandiae) Giant burrowing frog (Heleioporus australiacus)	Potential impacts on fauna resulting from development of the project include direct or indirect impacts. These issues can be grouped into the following: • Habitat loss from vegetation clearance and earthworks and subsequent smothering of vegetation by eroded material, altered hydrology and altered land uses. • Habitat degradation associated with the establishment of invasive species or the introduction of pathogens, edge effects, deposition of eroded sediments, or from contamination caused by accidental spills of hazardous materials. • Reduced abundance and/or diversity of fauna populations as a consequence of: ? Reduction in available habitat (including food sources, shelter and nesting or roosting sites) due to habitat loss and degradation (described above). ? Potential injury, death or displacement of fauna from vegetation clearing and earthworks, collision with vehicles. ? Increased competition with pest species due to change in habitat and food source.

2.4.2 Do you consider this impact to be significant?

Yes

2.5 Is the proposed action likely to impact on the members of any listed migratory species, or their habitat?

Yes

2.5.1 Impact table

Species	Impact
Rufous fantail (Rhipidura rufifrons)	This migratory species has been recorded in the project area. Potential impacts to this species include: • Habitat loss from vegetation clearance and earthworks and subsequent smothering of vegetation by eroded material, altered hydrology and altered land uses. • Habitat degradation associated with the establishment of invasive species or the introduction of pathogens, edge effects, deposition of eroded sediments, or from contamination caused by accidental spills of hazardous materials.
Australian painted snipe (Rostratula australis) Black-faced Monarch (Monarcha melanopsis) Caspian tern (Hydroprogne caspia) Fork-tailed swift (Apus pacificus) Latham's snipe (Gallinago hardwickii) Little tern (Sternula albirons sinensis) Marsh sandpiper (Tringa stagnatilis) Osprey (Pandion haliaetus) Satin flycatcher (Myiagra cyanoleuca) Sharp-tailed sandpiper (Calidris acuminata) White-throated needletail (Hirundapus caudacutus) Yellow wagtail (Motacilla flava)	These species have the potential to use the project area as a migratory route. Potential impacts to these species include: • Habitat loss from vegetation clearance and earthworks and subsequent smothering of vegetation by eroded material, altered hydrology and altered land uses. • Habitat degradation associated with the establishment of invasive species or the introduction of pathogens, edge effects, deposition of eroded sediments, or from contamination caused by accidental spills of hazardous materials.

2.5.2 Do you consider this impact to be significant?

Yes

2.6 Is the proposed action to be undertaken in a marine environment (outside

Commonwealth marine areas)?

No

2.7 Is the proposed action likely to impact on any part of the environment in the Commonwealth land?

No

2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

No

2.9 Will there be any impact on a water resource related to coal / gas / mining?

No

2.10 Is the proposed action a nuclear action?

No

2.11 Is the proposed action to be taken by the Commonwealth agency?

No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place Overseas?

No

2.13 Is the proposed action likely to impact on any part of the environment in the Commonwealth marine area?

No

Section 3 - Description of the project area

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

3.1 Describe the flora and fauna relevant to the project area.

Field surveys conducted in October 2016 identified 174 flora species from 57 families within the project area, of which 128 were native. The surveys also recorded 96 fauna species, of which 88 were native and 8 introduced species (EHP, 2017).

A review of the EPBC Act protected matters search tool identified seven listed species with the potential to occur within or surrounding the project area (DOEE, 2017). Of these, three EPBC-listed flora species were identified as having a moderate or high likelihood of occurring within the project area:

· Swamp everlasting (*Xerochrysum palustre*), vulnerable.

· Dwarf kerrawang (*Commersonia prostrata*), endangered.

· Gaping leek-orchid (*Prasophyllum correctum*), endangered.

Four State listed flora species were recorded within the project area during field surveys:

· Slender wire-lily (*Laxmannia gracilis*), rare.

· Blue mat-rush (*Lomandra glauca s.s.*), status poorly known.

· Slender tick-trefoil (*Desmodium varians*), status poorly known.

· Sandfly zieria (*Zieria smithii subsp. smithii*), rare.

An additional 36 state-listed species were identified as having a moderate or high likelihood of occurring within the project area.

A review of the EPBC Act protected matters search tool identified 21 listed terrestrial and amphibious fauna species as having the potential to occur within the project area. Based on habitat quality recorded during field surveys five of the EPBC-listed species have a moderate or high likelihood of occurring within the project area:

· Swift parrot (*Lathamus discolor*), endangered.

· Painted honeyeater (*Grantiella picta*), vulnerable.

- Grey-headed flying-fox (*Pteropus poliocephalus*), vulnerable.
- New Holland mouse (*Pseudomys novaehollandiae*), vulnerable.
- Giant burrowing frog (*Heleioporus australiacus*), vulnerable.

One state-listed species, Yellow-bellied sheathtail bat (*Saccolaimus flaviventris*), was recorded within the project area during field surveys. An additional 12 state-listed species were identified as potentially occurring in the project area.

One species of bird recognised under the migratory provisions of the EPBC Act, the Rufous fantail (*Rhipudura rufifrons*), was recorded in the project area during the October 2016 field surveys (EHP, 2017). An additional 18 EPBC Act-listed migratory or marine species have been recorded within 10 km of the project area.

A review of the EPBC Act protected matters search tool identified two listed aquatic fauna species:

- Eastern dwarf galaxias (*Galagiella pusilla*), vulnerable.
- Australian grayling (*Prototroctes maraena*), vulnerable.

The likelihood of these species occurring within the project area is low. This species was not recorded within the project area during fish surveys conducted in June 2016. This is because waterways and water bodies in the study area consist of modified, disturbed creeks and gullies or constructed farm dams. Overall these waterways and water bodies are considered to be in poor to moderate condition with limited aquatic habitat and connectivity to downstream receiving waterways and therefore limited aquatic fauna passage.

3.2 Describe the hydrology relevant to the project area (including water flows).

The project area is located within the catchments of the Mitchell River and Avon River on a tableland to the east of the floodplains of the lower Mitchell River. A number of small, ephemeral tributary streams drain the central and eastern half of the project area to the Mitchell River which passes to the east of the project area while the far southwestern part of the project area drains south to the Perry River. The Perry River flows south to join the Avon River at Lake King.

The eastern part of project area is situated in the Mitchell River catchment, which drains an area of 664 km2. The Mitchell River passes to the northeast of the project area and has an estimated average annual stream flow of 884,500 ML (DSE, 2011). The upper catchment is predominantly undisturbed, forested, public land including sections of the Alpine National Park and Mitchell River National Park.

The Mitchell River system is the largest river system in Victoria that does not have a large on-stream dam, which has assisted to maintain its high environmental value. In the lower reaches of the catchment, the river transitions to floodplains where deposited sediment has created

fertile agricultural land. The floodplains have been extensively cleared for agriculture and are highly modified from their natural state. The Mitchell River catchment falls under the management of the East Gippsland Catchment Management Authority (CMA) and is listed as a Heritage River under the Victorian *Heritage Rivers Act 1992*. Flooding occurs across the low-lying plains with approximately 60 km2 of land prone to flooding. Major floods persist for between 3 and 40 days (DEDJTR, 2015). The Mitchell River discharges into Jones Bay and Lake King which form part of the Gippsland Lakes.

The southwestern portion of the project area lies within the Perry River catchment which is a tributary of the Avon River. The Avon River catchment drains an area of approximately 2,000 km2 and extends from the foothills of the Great Dividing Range to Lake Wellington, which forms part of the Gippsland Lakes. The Avon River catchment supports a wide range of agricultural and irrigation land uses on the lower floodplains. Flooding is a common occurrence with major flood events occurring in 2007, 2011 and 2012. The Avon River is managed by the West Gippsland CMA.

The Gippsland Lakes consist of a series of coastal lagoons along the Gippsland coast separated from the sea by a barrier system of sand dunes. They represent significant, high value surface water features in the area, and receive both groundwater and surface water discharge from systems emanating from or passing through the project area. The Gippsland Lakes are located 50 km and 35 km downstream of the project area via the Mitchell River and Perry River respectively.

3.3 Describe the soil and vegetation characteristics relevant to the project area.

Soils

The project area is located within the eastern lowlands subregion of the Gippsland Lakes Basin. Geologically the Gippsland Lakes Basin is highly complex in its structure and sedimentary deposition. The oldest exposed rocks are Cambrian submarine basic volcanics, associated sediments and intrusive rocks (Aldrick et al., 1984). The Gippsland Lakes Basin is broadly divided into two regions; the hill and mountains on consolidated rocks and the relatively flat terrain at low elevations (referred to as uplands and lowlands). The eastern lowlands subregion, which consists of fans, terraces and floodplains. The Haunted Hills Gravels outcrop extensively across the project area. Overlying soils are sodic and affected by gully and tunnel erosion in areas of steeper gradient. Underlying the Haunted Hill Formation are the fine sands of the Coongulmerang Formation which host the Glenaladale deposit.

Soils in the eastern lowlands region range from red texture contrast soils, kurosols and chromosols to brown and red friable earths, dermosols, kandosols and ferrosols (DEPI, 2015a). Much of the soils in the modern floodplains of the eastern lowlands are high quality agricultural soils ideally suited to irrigated use (Aldrick et al., 1984). Within the project area soils are characterised by pale sands and duplex soils (brown kurosols and sodosols) with low compaction and high leaching (DEPI, 2015a). During a site visit by Coffey in June 2015 soils in the western portion of the project area were observed to be shallow or absent of topsoil, nutrient poor, rocky and with dispersive subsoil. Soils in the eastern lowlands are prone to gully, wind, rill

and tunnel erosion and are moderately well drained (DEPI, 2015a).

Vegetation

The project is located within a transitional zone between the East Gippsland Lowlands and Gippsland Plain bioregions, and a short distance from the Highlands Southern Fall and East Gippsland Uplands bioregions (DEPI, 2015b). To the west of the project area, the East Gippsland Lowlands bioregion transitions to the Gippsland Plain bioregion. This bioregion consists of flat low lying coastal and alluvial plains with gently undulating terrain dominated by barrier dunes and floodplains and swampy flats generally below 200 m above sea level (DEPI, 2015b). The bioregion retains native vegetation in a highly fragmented pattern, reflecting a variety of land-use histories in the region.

Approximately 148 ha of remnant vegetation was recorded within the project area during field surveys conducted in October 2016. This is represented by seven ecological vegetation classes (EVCs):

- Lowland Herb-rich Forest (13.38 habitat hectares).
- Lowland Forest (2.77 habitat hectares).
- Plains Grassy Forest (52.14 habitat hectares).
- Plains Grassy Woodland (11.34 habitat hectares).
- Valley Grassy Forest (67.29 habitat hectares).
- Aquatic Herbland (1.11 habitat hectares).
- Plains Grassy Wetland (0.18 habitat hectares).

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area.

Much of the indigenous vegetation and good quality terrestrial fauna habitat remaining within the study area is confined to roadsides and the dissecting gullies, which have been less affected by past land clearing and sustained agricultural land use.

The project area supports a mosaic of fauna habitat types, including lowland forest, dry forest, plains woodland, wetlands, scattered trees, disturbed pasture and plantation. Vegetated road reserves, particularly along Fernbank-Glenaladale Road and Bairnsdale-Dargo Road, provide good connectivity for a variety of woodland dependent species, including woodland birds, arboreal mammals, small ground-dwelling mammals and reptiles. These roadside reserves provide connectivity with large areas of native bushland located north and south of the project area. Scattered trees within paddocks throughout the project area may act as means of connection for more mobile fauna, including birds, microbats and arboreal mammals (EHP,

2017).

3.5 Describe the status of native vegetation relevant to the project area.

While the vast majority of the project area has been historically cleared of native vegetation, remnant vegetation occurs in scattered fragments. Much of the remaining remnant native vegetation within the project area is along roadsides (EHP, 2017). These strips of vegetation often contain large mature trees with hollows that support a variety of fauna. One EPBC-listed vegetation community, the Gippsland Red Gum (*Eucalyptus tereticornis subsp. mediana*) Grassy Woodland and associated native grassland, was identified in the project area through its association with the high quality Plains Grassy Woodland remnants (EHP, 2017). One EPBC-listed vegetation community, Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains, was predicted to occur within the project area or within 10 km (DOEE, 2017). Field surveys for the project did not record this ecological community (EHP, 2017). Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The project area is located on a low-hill landform with a relief of 30 to 90 m. The central portion of the project area is dominated by a tableland which is incised in the west by the headwaters of the Perry River catchment. To the east of the project area there are sharply rising river terraces, eroded gullies and waterways that drain into the Mitchell River. Several kilometres to the north of the project area this increases to hill landforms with a relief of around 300 m (DELWP, 2015).

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

Not applicable

3.7 Describe the current condition of the environment relevant to the project area.

The landscape within the project area has largely been modified due to agricultural and forestry activities. There is clear evidence for past or current mass movement of soil within the project area. Soils in the eastern lowlands are prone to gully, wind, rill and tunnel erosion and are moderately well drained (DEPI, 2015b).

Invasive plants and animals are a persistent and widespread threat to East Gippsland's natural environment and agricultural industries (RMCG, undated). An indication of the extent of the invasive plant species in the region are the records of over 120 exotic species in East Gippsland, which vary in their threat, distribution and degree of impact (RMCG, undated).

During field surveys conducted in October 2016, eight species of declared noxious weeds listed under the Victorian *Catchment and Land Protection Act 1994* (CaLP Act) were recorded in the project area (EHP, 2017). Of these noxious weeds, three species, blackberry (*Rubus fruticosus L. agg.*), African box-thorn (*Lycium ferocissimum*) and bridal creeper (*Asparagus asparagoides*) are weeds of national significance (WoNS) under national management as part of the National

Weeds Strategy (Natural Resource Management Ministerial Council, 2006).

3.8 Describe any Commonwealth Heritage Places or other places recognised as having heritage values relevant to the project area.

Many of the townships surrounding the project area still contain historical buildings and relics that provide a record of European settlement of the area, including the unregistered former Fernbank School (established 1908). The Fingerboards at the intersection of the Bairnsdale–Dargo Road and Glenaladale–Fernbank Road is known to have local significance due to its association with past grazing.

A search of the Victorian Heritage Database indicates that there are a number of listed heritage places near to but not within the project area. These include Wuk Wuk Bridge and the Glenaladale Weir (both are listed on the National Trust register). The Old Weir on Mitchell River (also known as Glenaladale Weir) is located near the junction of the Mitchell River and Stony Creek. Construction commenced in 1891 however the weir was damaged by floods in 1893 and was never repaired. Sections of the weir wall are still present today (EGCMA, 2015). The Wuk Wuk Bridge over the Mitchell River was constructed in 1937. It is located on the Lindenow–Glenaladale Road. The bridge is historically, scientifically and aesthetically of State significance. It is a representative example of novel Victorian bridge engineering of the mid to late 1930s (HCV, 2015). Although most of the timber foundations have been replaced, one of the original pylons is still present.

A review of EPBC Act protected matters search tool showed that there are no National Heritage Places in or within 10 km of the project area (DOEE, 2017).

3.9 Describe any Indigenous heritage values relevant to the project area.

The Indigenous inhabitants of the East Gippsland region are known as the Gunaikurnai people. Pre-European settlement, the Gunaikurnai comprised five tribal groups; the Krowathunkooloong, Brataualong, Tatungalong, Brabralong and Brayakaulung peoples (GTOLMB, 2015). For thousands of years, the East Gippsland region sustained the Gunaikurnai people, providing fertile soils, freshwater systems and coastal environments that offered food sources, hunting and gathering sites and shelter. Influenced by seasonal weather and food supplies, these groups moved between defined coastal areas and the foothills of the Great Dividing Range (GTOLMB, 2015). Traditionally Gunaikurnai territory occupied most of present-day Gippsland, between Wilson’s Promontory and far East Gippsland, including the coastal and inland areas and much of the southern slopes of the Victorian Alps (GTOLMB, 2015). Aboriginal artefacts present in the region provide evidence of this occupation.

A review of Victorian Department of Premier and Cabinet cultural heritage sensitivity mapping indicates that there are areas of cultural heritage sensitivity within and adjacent to the project area, particularly near watercourses including rivers and creeks (DPC, 2015). Approximately 80 registered places (predominately scar trees and artefact scatters) were identified on the Victorian Aboriginal Heritage Register as being present in the wider East Gippsland region;

however only four of these sites are located within or adjacent to the project area. Of these, one registered heritage place (a scar tree) is located within the project area and two scar trees are located to the north of the project area.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area.

The land within the project area is freehold land used for agriculture and plantation forestry with government road reserves (Crown land).

3.11 Describe any existing or any proposed uses relevant to the project area.

The key land uses within the project area include grazing (sheep and cattle), hobby farms, plantations, disused gravel borrow pit, and rural residential properties. In the vicinity of the project area other land uses include dairy, irrigated horticulture, state forest, recreational and commercial uses in small rural towns.

The Gunaikurnai people have been recognised as Native Title Owners over much of Gippsland. Their native title applies to Crown land from West Gippsland close to Warragul, east to the Snowy River and north to the Great Dividing Range. The area also extends 200 m offshore. Other interests in the project area will be determined during the preparation of the impact assessment.

Section 4 - Measures to avoid or reduce impacts

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action.

Consideration will be given in the planning and design of the project to minimise its impact on the environment, including impacts on matters of national environmental significance. Measures to avoid, minimise and manage environmental impacts will be implemented during the planning, investigation, detailed design, construction, operations, decommissioning and closure phases of the project.

The active mining area is determined by the location of the deposit, which is located on previously disturbed agricultural land. The location of infrastructure associated with the mine including the processing plant, TSF and office facilities will be sited to avoid sensitive environmental values.

A key management measure is the progressive rehabilitation of vegetation and landform as mining areas are completed. Progressive rehabilitation will enable the continual monitoring, refinement and adaption of rehabilitation methods throughout the mining phase.

For impacts that may occur after the incorporation of avoidance measures in project design, there will need to be management measures in place. Management measures will be based on established environmental best practices and will include the following generic measures:

· Undertake specialist studies to confirm presence of listed species, habitat or other environmental aspects likely to be affected, and to propose site-specific management measures.

· Designate ‘no-go’ zones to ensure areas to be protected are clearly defined, identified and avoided and that clearing and ground disturbance will only occur within designated areas.

· Employ erosion and sediment control measures during earthworks.

· Control erosion and sediment runoff from disturbed areas during construction and rehabilitation.

· Ensure project vehicles and equipment arrive on site free of vegetation, seeds, pathogens and mud during construction and restrict vehicles to marked roads.

· Prevent or control weed infestations in the project area.

· Prevent or control weed infestations in topsoil stockpiles to minimise the likelihood of weed introduction or increased distribution during respreading of topsoil.

· Avoid the disturbance of native vegetation where practicable.

· Ensure the development and implementation of vegetation clearance protocols (including an internal clearance procedure) and assessing performance against them.

· Offset any loss of native vegetation by the protection of remnant vegetation in perpetuity and the improvement of native vegetation management within and surrounding the project area.

· Progressively rehabilitate disturbed land.

· Employ best practice waste management practices during construction and operations.

Wastewater discharge requirements and the potential for surface water runoff to receiving water environments will be determined during the project impact assessment. It is likely that some wastewater will be discharged to the environment but measures will be in place to reduce impacts of discharges reporting to surface water or groundwater resources. Flood events and surface drainage will need to be managed to ensure erosion and sediment impacts are minimised, particularly on the Mitchell River.

Management of water-related impacts is likely to include:

· Optimise project concept to reduce water use and discharge.

· Implement surface water flow control to minimise erosion and sediment runoff.

· Implement controls to prevent chemical or sediment contamination of water sources.

· Monitor the effectiveness of water management controls and improving them where necessary.

· Progressive rehabilitation to minimise areas of soil disturbance.

To ensure avoidance and management measures are effective, project infrastructure, controls and procedures will be regularly inspected and monitored during construction and operations. This will likely include:

· Monitor ambient water quality downstream of land disturbance.

· Monitor emissions (such as waste, gas and water) from project infrastructure.

- Monitor and auditing workplace procedures and performance of personnel.

- Inspect the integrity of sediment and bunding control structures.

The monitoring regimes will be used to identify areas for improvement of the management measures.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved.

Areas of native vegetation will be avoided in the planning, design and construction of infrastructure for the proposal. Where mining activity will occur, the area of native vegetation will be minimised and offset accordingly. The offsets will be protected in perpetuity on title and will result in a net gain in the extent and quality of these ecological communities.

During the preparation of the mine plan, areas of environmental significance will be considered in mine scheduling and the footprint design of the active mining area. Some areas may be avoided, others may be designed to minimise the impact of MNES and others will be offset to compensate for vegetation or habitat loss.

Disturbed areas will be rehabilitated progressively during mining with some of the changes to the landscape being temporary. The aim of rehabilitation and closure works will be to resemble the landscape and land use prior to mining.

Section 5 – Conclusion on the likelihood of significant impacts

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

5.1.1 World Heritage Properties

No

5.1.2 National Heritage Places

No

5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)

No

5.1.4 Listed threatened species or any threatened ecological community

Listed threatened species and communities - Yes

5.1.5 Listed migratory species

Listed migratory species - Yes

5.1.6 Commonwealth marine environment

No

5.1.7 Protection of the environment from actions involving Commonwealth land

No

5.1.8 Great Barrier Reef Marine Park

No

5.1.9 A water resource, in relation to coal/gas/mining

No

5.1.10 Protection of the environment from nuclear actions

No

5.1.11 Protection of the environment from Commonwealth actions

No

5.1.12 Commonwealth Heritage places overseas

No

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action.

Not applicable

Section 6 – Environmental record of the person proposing to take the action

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Please explain in further detail.

Kalbar has proven its commitment to responsible environmental management during its exploration program. Kalbar has conducted and continues to conduct its exploration program with no adverse environmental impacts. This has required stakeholder engagement, negotiation of land access and progressive rehabilitation. Upon completion of drilling, all drilling sites are rehabilitated to original condition. Photographic evidence of the rehabilitation of exploration drill holes is recorded and documented. Landowners are asked to verify the success of rehabilitation before Kalbar and their drilling contractor demobilise from site.

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application.

None.

6.3 Will the action be taken in accordance with the corporation's environmental policy and planning framework?

Yes

6.3.1 If the person taking the action is a corporation, please provide details of the corporation's environmental policy and planning framework.

Kalbar acknowledges its responsibility to the environment and commits to implementing practices that promote environmental sustainability. The objectives of the Kalbar’s Environmental Policy are:

· Conserve energy, water and resources.

· Wherever possible prevent, or otherwise minimise, mitigate and remediate, any harmful effects of our operations on the environment.

· Promote environmental awareness throughout all operations of the company and provide training to staff on implementing our sustainable policies.

· Dispose of waste thoughtfully, and develop an attitude of "reducing, recycling and reusing"

· Work with our entire supply chain in order to gain mutual benefits of incorporating environmentally sustainable goals into everyday business.

· Regularly review our business practices for compliance to our Environmental Protection Policy.

· Comply with all environmental laws and regulations.

An environmental management framework will be prepared as part of the approvals process. An environmental management plan will be prepared for the project and will include a construction environmental management plan and an operations management plan. This will include all commitments and management measures proposed to mitigate the impacts identified during the approvals process and the ongoing monitoring and review process.

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

No

Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

Reference Source	Reliability	Uncertainties
AECOM. 2012. Preliminary constraints, opportunities and process assessment. June 2012. Report prepared by AECOM for Oresome Australia Pty Ltd, Sydney, New South Wales. Aldrick. J. M., Hook. R. A., van de Graaff. R.H.M, Nicholson. B. M., O'Beirne. D.A., Schoknecht. N.R. 1984. A study of the land in the catchment of the Gippsland Lakes. Volume 1. Report prepared for Land Protection Division, East Melbourne, Victoria. Aquatica Environmental. 2016. Aquatic Habitat Assessment, Fingerboards Mineral Sand Project. Prepared for Kalbar Resources Ltd. and Coffey. August, 2016. Melbourne, Victoria. Coffey. 2015. Glenaladale Mineral Sands Project Baseline Report. Prepared for Kalbar Resources Ltd. July, 2015. Melbourne. DEDJTR. 2015. Victorian resources online: East Gippsland. A WWW publication accessed on 12 May 2015 at ht tp://vro.depi.vic.gov.au/dpi/vro/e gregn.nsf/pages/eg_landwtrmg mt_catchment_floodplain. Department of Economic	Initial desktop assessments have been based on historical records, many of which are more than three decades old. Field surveys to assess vegetation and fauna habitat were completed during July and October 2016. These surveys and subsequent assessments will enable a more accurate assessment of project impacts and will inform the project environment effects statement.	None

Reference Source	Reliability	Uncertainties

Development, Jobs, Transport and Resources, Melbourne, Victoria. DELWP. 2015. Biodiversity interactive map showing geomorphological units and geomorphic landsystems. Map produced on 28 May 2015 at http://mapshare2.dse.vic.gov.au/MapShare2EXT/imf.jsp?site=bim. Department of Environment, Land, Water and Planning, Melbourne, Victoria. DEPI. 2015a. Biodiversity Interactive Map. A WWW publication accessed on 11 June 2015 at http://mapshare2.dse.vic.gov.au/MapShare2EXT/imf.jsp?site=bim. Department of Environment and Primary Industries, Melbourne, Victoria. DEPI. 2015b. EVC Benchmarks, Victorian bioregions. A WWW publication accessed on 28 May 2015 at http://www.depi.vic.gov.au/environment-and-wildlife/biodiversity/evc-benchmarks. Department of Environment and Primary Industries. Melbourne, Victoria. DJR. 2015. Gunaikurnai Native Title Agreement. A WWW publication accessed on 25 May 2015 at http://www.justice.vic.gov.au/home/your+rights/native+title/gunaikurnai+native+title+agreement. Department of Justice and Regulation, Melbourne, Victoria. DOEE. 2017. EPBC Protected Matters Report. A WWW database accessed on 16 February 2017 at http://www.environment.gov.au/webgis-framework/apps/pmst/pmst.jsf. Department of Environment and Energy, Canberra, Australian

Reference Source	Reliability	Uncertainties

Capital Territory. DPC. 2015. Areas of cultural heritage sensitivity in Victoria. A WWW publication accessed on 28 May 2015 at http://www.dpc.vic.gov.au/index.php/aboriginal-affairs/heritage-tools/areas-of-culturalheritage-sensitivity/gippsland-region-maps. Department of Premier and Cabinet. Melbourne, Victoria DSE. 2011. Gippsland region sustainable water strategy. Department of Sustainability and Environment, Melbourne, Victoria. EGCMA. 2015. Catchments - EGCMA region, Mitchell River. A WWW publication accessed on 22 June 2015 at http://www.egcma.com.au/rivers/212/. East Gippsland Catchment Management Authority. Bairnsdale, Victoria. EHP. 2017. Ecological characterisation report: Fingerboards mineral sands project, Glenaldale, Victoria. Prepared for Coffey Services Australia, Melbourne, Victoria. GTOLMB. 2015. Gunaikurnai Overview. A WWW publication accessed on 25 May 2015 at http://www.gunaikurnai.com.au/. Gunaikurnai Traditional Owner Land Management Board. Bairnsdale, Victoria. HCV. 2015. Sites on the Victorian Heritage Database. June. Heritage Council Victoria. Melbourne, Victoria. Natural Resource Management Ministerial Council. 2006. Australian Weeds Strategy – A national strategy for weed management in Australia. Australian Government

Reference Source	Reliability	Uncertainties
Department of the Environment and Water Resources, Canberra, Australian Capital Territory. RMCG. Undated. East Gippsland invasive plants and animals plan. A report prepared by RMCG for East Gippsland Catchment Management Authority, Bairnsdale, Victoria.		

Section 8 – Proposed alternatives

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

8.0 Provide a description of the feasible alternative?

The proposal represents the optimum scenario for maximising the potential of the Glenaladale deposit. This information is based on exploration drilling and other studies conducted by Kalbar and previous tenement holders.

There are no alternative locations for the mining void as it is located on the deposit. A targeted approach to mine highly prospective areas of the Glenaladale deposit will be adopted. The proposed timing for the project reflects the economic viability of the development. Recent market activity and the forecast demand for, and price of, zircon and other heavy mineral products provide an opportunity for maximising the economic benefits of the project.

8.1 Select the relevant alternatives related to your proposed action.

8.27 Do you have another alternative?

No

Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

9.0 Is the person proposing to take the action an Organisation or an Individual?

Organisation

9.2 Organisation

9.2.1 Job Title

Managing Director

9.2.2 First Name

Neil

9.2.3 Last Name

O'Loughlin

9.2.4 E-mail

neil.oloughlin@kalbarresources.com.au

9.2.5 Postal Address

PO Box 849
Randwick NSW 2031
Australia

9.2.6 ABN/ACN

ABN

30149545362 - KALBAR RESOURCES LTD.

9.2.7 Organisation Telephone

+61 3 5152 3130

9.2.8 Organisation E-mail

info@kalbarresources.com.au

9.2.9 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

Not applicable

Small Business Declaration

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

Signature:..... Date: .....

9.2.9.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations

No

9.2.9.3 Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made

Person proposing the action - Declaration

I, __Neil O'Loughlin_____, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature:..... Date: ....1 MAY 2017....

I, ___Neil O'Loughlin_____, the person proposing the action, consent to the designation of ____Neil O'Loughlin_____ as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature:..... Date: ....1 MAY 2017....

9.3 Is the Proposed Designated Proponent an Organisation or Individual?

Organisation

9.5 Organisation

9.5.1 Job Title

Managing Director

9.5.2 First Name

Neil

9.5.3 Last Name

O'Loughlin

9.5.4 E-mail

neil.oloughlin@kalbarresources.com.au

9.5.5 Postal Address

PO Box 849
Randwick NSW 2031
Australia

9.5.6 ABN/ACN

ABN

30149545362 - KALBAR RESOURCES LTD.

9.5.7 Organisation Telephone

+61 3 5152 3130

9.5.8 Organisation E-mail

info@kalbarresources.com.au

Proposed designated proponent - Declaration

I, Neil O'Loughlin, the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.

Australian Government
Department of the Environment and Energy

Signature: ..... Date: 19/4/2017

9.6 Is the Referring Party an Organisation or Individual?

Organisation

9.8 Organisation

9.8.1 Job Title

Senior Principal Environment and Social Impact Ass

9.8.2 First Name

Carolyn

9.8.3 Last Name

Balint

9.8.4 E-mail

Carolyn.balint@coffey.com

9.8.5 Postal Address

Level 1, 436 Johnston Street
Abbotsford VIC 3067
Australia

9.8.6 ABN/ACN

ABN

55139460521 - COFFEY SERVICES AUSTRALIA PTY LTD

9.8.7 Organisation Telephone

+61 3 9290 7000

9.8.8 Organisation E-mail

carolyn.balint@coffey.com

Referring Party - Declaration

Australian Government
Department of the Environment and Energy

I, Carolyn Balint, I declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature:..... Date: 19/4/17

Australian Government
Department of the Environment and Energy

Appendix A - Attachments

The following attachments have been supplied with this EPBC Act Referral:

1. 000156_final_rpt_the_fingerboards_aqua_hab_assess_02082016_p.pdf
2. 7308_ehp_glenaladale_excond_060317_appendices.pdf
3. 7308_ehp_glenaladale_excond_060317_figures_1of3.pdf
4. 7308_ehp_glenaladale_excond_060317_figures_2of3.pdf
5. 7308_ehp_glenaladale_excond_060317_figures_3of3.pdf
6. 7308_ehp_glenaladale_excond_060317_mainreport.pdf
7. 11607aa_06_brief_f001_gis.pdf
8. 11607aa_06_brief_f002_gis.pdf
9. enauabtf11607_3_ees_referral_v6_2.pdf
10. enauabtf11607_5_epbcreferral_section2.docx
11. enauabtf11607_5_fingerboardsminearea_20year.kml
12. kalbar-environmental-protection-policy-1-1.pdf