

IAC Inquiry into the Fingerboards mine proposal

Presentation by Michelle Barnes - July 16, 2021

*BA University of Sydney – Double Major in Environmental Geography*

**Imagine Kalbar's 16 square kilometre mine site - up to 50 metres deep  
- on this plateau just 350 metres from the Mitchell River!**

**Veggie fields in the Lindenow Valley, a major food bowl for Australia, begin 500 metres downwind.  
Bairnsdale's drinking water supply dams at Woodglen are 3.5 kilometres downwind.**

**The **TOXIC WINDBORNE DUST** created by mineral sands mining is a major health hazard.**



**SAY NO TO KALBAR'S OPEN-CUT MINE**

Check out submissions at <https://engage.vic.gov/fingerboards-IAC> • Email Planning Minister Wynne with your concerns: [richard.wynne@parliament.vic.gov.au](mailto:richard.wynne@parliament.vic.gov.au)



# THIS IS GUNAIKURNAI COUNTRY

*'On behalf of the Koorie Youth Council and the wider Aboriginal community we say no to any form of mining developments in our community.'*

*East Gippsland has some of the oldest and most substantial cultural sites in the world. The rock formations, ceremonial sites and trading and hunting grounds found in and around Glenaladale are extremely meaningful to our Gunaikurnai people, and its preservation is vitally important for our identity and the continuation of our rich cultural heritage.*

*The proposed mine will unequivocally affect our ancient local history. As a community we cannot let this happen.*

*It is proven in other areas both nationally and internationally that mining causes colossal and irreversible damage to the environment. We do not want to see this happen in our beautiful Gippsland Lakes and surrounds, which is home to many.'*

Casey Ritchie – Bairnsdale Koorie Youth Council

Excerpt from his presentation at East Gippsland Shire Council meeting 11/12/18

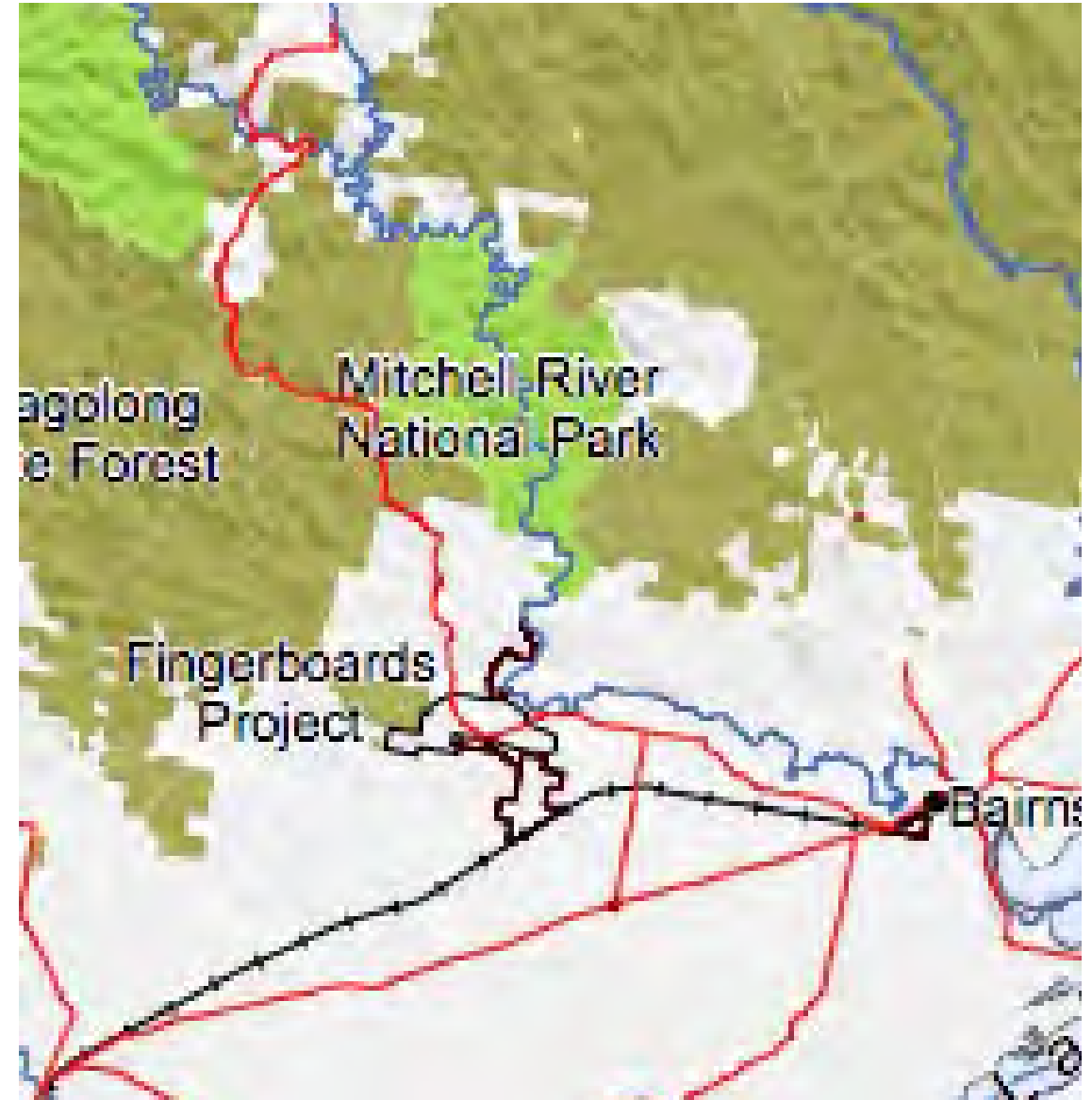
# IN A NUTSHELL:

- **Environmentally reckless**, unproven, unsustainable – dangerous location for an open-cut mine – Mitchell & Perry Rivers, RAMSAR Gippsland Lakes, major aquifers, Bairnsdale & region drinking water – EES not credible – No onus of proof
- **NO social license** – already causing terrible stress to community
- Irreversible **destruction of Aboriginal Cultural Heritage** of Gunaikurnai People (Brabralung Clan) – GLAWAC, Koorie Youth Council, Elders & individuals emphatically say NO
- **Lindenow valley horticulture** – impacts will damage & most likely destroy this established multi-million \$ industry along with thousands of jobs
- Inequitable to future generations' right to exist and thrive in this environment - **intergenerational net loss of jobs, health & viability** – threat to industries such as tourism, providence food branding, farming, viticulture, hospitality, outdoor recreation, the arts, fishing & many more – majority of regional businesses & enterprises negatively impacted directly or indirectly
- **At odds with the EXISTING CHARACTER of 'naturally magic' East Gippsland** – 'mining destination' is not the image / brand we want or need – dirty, ugly with an ongoing toxic legacy. Clean, green & natural is what works here >> winning brand
- Inevitable **impacts to human, animal & plant health** - 100% unacceptable – toxic dust, water contamination - Kalbar has no right to gamble with our LIVES – how DARE they?
- Mine **threatens East Gippslanders' entire way of life** – valuable people will move away – increase in mental health problems – societal decay – decreased land values – pressure on hospital system
- The **PRECAUTIONARY PRINCIPLE** must be applied – please reject this proposal

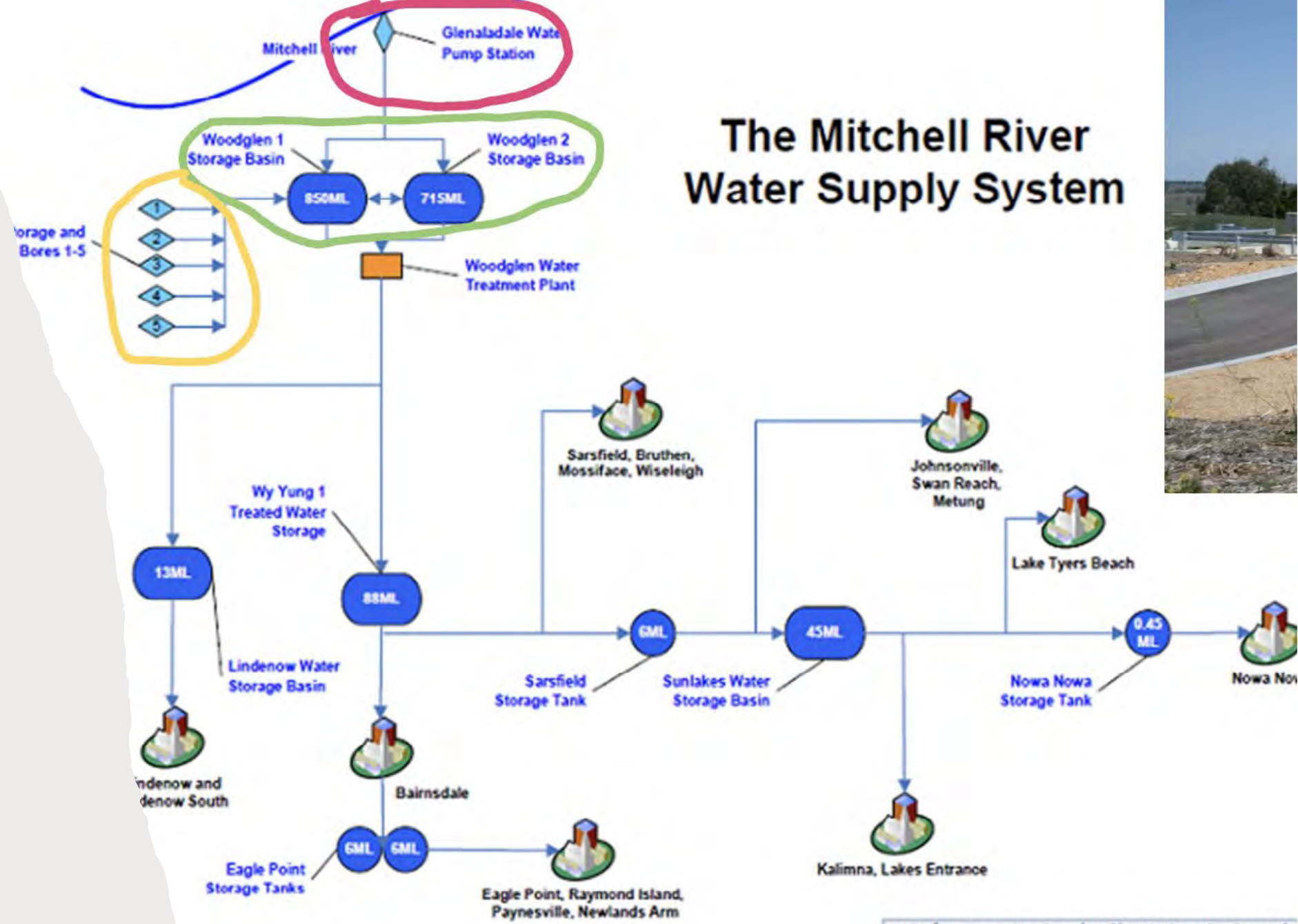
**This East Gippsland location is too precious, too sensitive & too valuable to mine!**

# The Mitchell River – A Heritage River, the lifeblood of our region

- When you look at the *scale of Kalbar's mine in context of the Mitchell River's catchment*, it puts things in frightening perspective
- This is a sizeable piece of the river's catchment – nearly 1%
- The Mitchell River is Victoria's largest unregulated (free-flowing) river system, representing a unique example of riparian ecology - this is something special
- The Mitchell's right to exist, flow freely & continue delivering 'ecosystem services' to all who live work & play in it's vicinity are threatened by this proposal
- First Nations' rights to culturally access the river & its clean water are threatened by this proposal
- The Mitchell connects and holds this landscape together – culturally, environmentally, socially, spiritually, economically
- If approved, Kalbar's mine WILL (*not might*) have a devastating impact on this river system (including the Gippsland Lakes) & all who rely on it
- The Mitchell supplies water to around 22,000 customers from Lindenow to Paynesville, Bruthen, Lakes Entrance, Nowa Nowa and everywhere in between (*East Gippsland Water 2019*)
- **WATER SECURITY & ACCESS TO CLEAN SAFE DRINKING WATER ARE BASIC HUMAN RIGHTS.** As we head into an era of changing climate, increasing droughts, bushfires, extreme weather events & pandemics, these human rights trump Kalbar's single-minded pursuit of profit



# The Mitchell River Water Supply System



Extract from :

*Mitchell River Water Supply And Treatment*

Information sheet  
(East Gippsland Water 2012)

1 ML of water = approximately 1 Olympic size swimming pool

*EXTRACTS FROM EAST GIPPSLAND WATER MEDIA RELEASE – 26 FEB  
2019 >>*

The media release opposite highlights the **FRAGILITY OF EAST GIPPSLAND'S WATER SUPPLIES**, showing how crucial it is to have access to pump & store that water during winter periods. There isn't enough water flowing down the Mitchell in summer to be able to extract large amounts of water, while maintaining ENVIRONMENTAL FLOWS. With this system in such delicate balance & our drinking water & lives reliant on it, how could it even be considered to give a mining company 3GL (or more) of water from this system for operations and dust suppression?

East Gippsland Water clearly states that being careful with water will become :

*'EVEN MORE IMPORTANT AS WE EXPERIENCE ADDITIONAL CHALLENGES ASSOCIATED WITH CLIMATE CHANGE, EXTREME WEATHER EVENTS AND POPULATION GROWTH.'*

**WHAT AN OBSCENE LIFE-THREATENING WASTE OF THIS FINITE LIFE-SUSTAINING WATER RESOURCE A MINE WOULD BE**

## MEDIA RELEASE



Contact: Ronan Carroll Ph: 5150 4434 / 0428 539 303

26 February 2019

### Mitchell River water situation update

East Gippsland Water is set to cease extracting water from the Mitchell River entirely in coming days, following a number of weeks where it has steadily cut back on the amount of water pumped.

Managing Director, Steve McKenzie, said, "We operate under strict licence conditions, and have been progressively reducing our pumping to ensure that environmental flows are maintained. With the amount of water flowing down the Mitchell steadily falling off during one of the region's warmest and driest periods on record, we are now reaching the point where we will stop extracting altogether.

"We rely on water from the Mitchell River to supply 22,000 residential customers, businesses and holiday makers in communities from Lindenow in the west through to Nowa Nowa, including the larger townships of Bairnsdale, Paynesville and Lakes Entrance.

"Thanks to good planning we currently have about 120 days of water available to carry our customers through until the usual winter rains, and then we'll begin rebuilding our water reserves for next summer.

"Having said that, we're constantly monitoring the water situation and it's clear that we're facing an increasingly unpredictable long term climate and water outlook. It's appropriate therefore that our customers look closely at their water needs in the home and garden to see how they can minimise consumption and conserve our region's precious water resources as we focus on the future.

"Our water supply is a precious and limited resource and we need to continue our trend of using less water and maintain the habit of using water efficiently. This will become even more important as we experience additional challenges associated with climate change, extreme weather events and population growth.

# The Perry River - Providence Ponds, Chain of Ponds

- Perry River recognized for its high representation of 'Chain of Ponds' channel morphology - now very rare in the landscape. One of the best-preserved examples is in the Providence Ponds Flora & Fauna Reserve, 6.4 km downstream of the proposed mine.
- This is country of the Brayakaulung Clan of the Gunaikurnai People
- Tailings dam was proposed in Perry's headwaters. Now unsure due to centrifuge proposal – if centrifuges fail, tailings dam could go ahead. Regardless, open-cut mining is still proposed in the Perry's catchment, posing an unacceptable risk to this system & its remarkable Chain of Ponds – highly significant geomorphologically & ecologically
- Providence Ponds supports a diverse array of threatened flora, fauna & vegetation communities, including wetlands & fish breeding habitat (see submission 488, pg. 25)
- EES didn't use reliable data to assess the Perry River system. There were insufficient flow monitoring stations & historical data on the Perry, so Kalbar's consultants (in a stroke of genius!) calibrated flow data from the Mitchell River & applied it to the Perry
- Given they are two completely distinct systems, very different sizes & each with unique channel morphology, topography, geology, flow regimes etc.. etc.. How could this be an acceptable standard for an EES? (*Well I guess it's Kalbar we're talking about...*)
- Kalbar acknowledged their unprofessional flaw by citing my submission (488) in their list of issues raised by submitters:

*'Hydrological representation of Perry River system was inadequate:  
channel morphology differs to that of Mitchell River system'*

(Tabled Document 25, pg. 24)

# Ground Water, GDE's & Redgum Country

- Landscape with shallow aquifers, abundant groundwater, spring-fed dams & GDE's – evident everywhere
- This is Redgum country! They love periodic inundation - Redgums indicate geology conducive to this
- Lack of deep discussion in EES about this highly watered, fluvial landscape & the impact mining will have on GDE's by altering water flows & availability
- Cutting 45 meters deep through stratigraphy here, disturbing surface & groundwater flow regimes in recharge & discharge zones will cause catastrophic, irreversible changes to this landscape including mounding. Controlling water will become a huge problem



Redgums inundated on Kalbar's property after recent rain event. Some bore holes are only meters away!





June 2021 - Kalbar bore hole next to inundated country. After recent rainfall many areas were inundated for days. To propose open-cut mining here is a stupid & dangerous idea



Lindenow-Glenaladale Road June 2021 – typical scene of inundated roads and country in the Glenaladale area after a recent rain event - this wasn't a particularly large rain event in comparison to others which occur. Demonstrates how parts of this country hold water – they are poorly drained in many areas. Kalbar's HMC laden trucks will be using some of these roads..



Spring-fed dam on the Coleman farm – a Ground Water Dependent Ecosystem (GDE)



# The EES was scant on GDE's

## ***Saplings Morass Flora & Fauna Reserve***

No discussion on how mining will impact this system 3.4 km south of the mine pit

Kalbar's proposed groundwater borefield runs over a large area either side of Cowell's Rd - surrounds Saplings Morass - will steal essential water from this GDE

Preferred transport route haulage road to Fernbank East rail siding to be constructed through paddock adjacent to reserve – paddock also contains swampland / GDE. Diversion of water relied on by Saplings Morass GDE to exist, could cause it to dry out & die

Saplings Morass supports Australia's largest population of EPBC-listed Swamp Everlasting (*Xerochrysum palustre*) – this reserve is critical to survival of the species. National Recovery Plan identifies 'disruption to hydrology' as a major threat!

## ***Seasonal Herbaceous Wetlands (freshwater) of the Temperate Lowland Plain***

EVC wasn't even identified by the EES - yet occurs throughout this landscape. Suitable habitat for vulnerable species, including Giant Burrowing Frog (GBF)

## ***The Giant Burrowing Frog***

The GBF has recently been identified by Brendan Casey within the mine footprint in the Fingerboards area. One was also found by a farmer near Moilun Creek in Glenaladale in 2020. Kalbar haven't been looking – the survey work has been left up to under-resourced volunteers. Kalbar claim they will re-locate any GBF they find, but this has NEVER been successful

***EES Risk Assessment didn't fully consider impacts & loss of aquatic habitat*** through loss of containment (hazardous materials/chemical spills) in and downstream of mine project area – impacts would be devastating



Swamp Everlasting @ Saplings Morass – Nov 2020



Lush Saplings Morass – Nov 2020



SAPLINGS MORASS

PLEASE TAKE YOUR RUBBISH WITH YOU

## THE SPECIES

The Giant Burrowing Frog is a large ground dwelling species with muscular forelimbs growing to around 95mm. Currently it is listed as a single species ranging from Newcastle in NSW, south to Walhalla in VIC, however there is considerable morphological and genetic evidence suggesting it is in fact two species.

It is rarely encountered in Victoria largely due to lack of species knowledge and cryptic habits. Recent 2015 surveys presented 15 records from a total of nine males from the Mitchell River catchment in East Gippsland, with subsequent incidental records from the same area. Survey methods focus primarily on visual detection, auditory (sound records and manual), tadpole and road transects.

Threats to the Giant Burrowing Frog are numerous including feral cat and foxes, land clearing, fuel reduction burning, grazing, timber harvesting and chytrid fungus however all require further investigation.

Excerpt from Zoos Victoria *Fighting Extinction species— Giant Burrowing Frog*

## GIANT BURROWING FROG RECORDED AT THE FINGERBOARDS



A volunteer researcher, Mr. Brendan Casey, has recorded multiple call events of the Giant Burrowing Frog, *Heleioporus australiacus*, on private land near the Fingerboards at Glenaladale.

The Giant Burrowing frog has the status of being vulnerable to extinction within the federal Environment Biodiversity Conservation Act (EPBC Act), the International Union for the Conservation of Nature (IUCN) and Victorian Flora and Fauna Guarantee Act.

The Fingerboards is the site of the proposed Kalbar mineral sands mine which will cover over 2000 hectares of private and public land. Mr. Casey stated "A population of Giant Burrowing Frogs at Glenaladale is now confirmed at the Fingerboards location and Kalbar does not consider the species exists within the proposed mine area, which includes all of the Fingerboards."

In May 2020 Mr. Casey recorded the calls of the Giant Burrowing frog at Stoney Creek (near the Mitchell River National Park) which is less than 10 kms from the proposed mine area. Having developed an interest in the species in the area, he reviewed the Environmental Effects Statement (EES) to see the method used to determine if the frog was present in the area.

Mr. Casey stated "I was interested in the methods used by the proponent to determine the occupancy status of the listed threatened species, but was disappointed that almost no effort was to made find the frog."

"This misleading account of threatened species status as described in the EES is difficult to understand considering the biodiversity crisis our country is currently undergoing."

To address this failure of process, in October 2020, with the cooperation of landholders within the proposed mine area, a network of autonomous acoustic recorders were established, to determine the status of the Giant Burrowing Frog within the proposed mine project area.

On 6, 7 and 8 April 2021 the calls of the Giant Burrowing Frog were heard from one of the monitoring locations. He said that both his research at Stoney Creek and the Fingerboards recordings were significant as both sites were surrounded by cleared, grazing country. Very little is known about the Giant Burrowing Frog's ecology and distribution, and it has an advisory listing of critically endangered species in Victoria.

In 2020 a Giant Burrowing Frog was accidentally disturbed in the area of Moulin Creek, in Glenaladale by a farmer cutting firewood. Mr. Casey said it was extremely important that long term monitoring of this very difficult to detect and highly cryptic species of frog be undertaken across the entire proposed mining and infrastructure area before the mine proceeds. Mr. Casey is seeking an explanation from the proponent as to why the species was able to be detected by an unfunded and unresourced volunteer and missed by an international mining company with deep pockets.

The findings of the acoustic monitoring research were presented to the Inquiry and Advisory Committee Panel at the EES Hearing for the Fingerboards Mineral Sands project.

# UNBURNED NATIVE VEGETATION REFUGES

*are precious rarities*

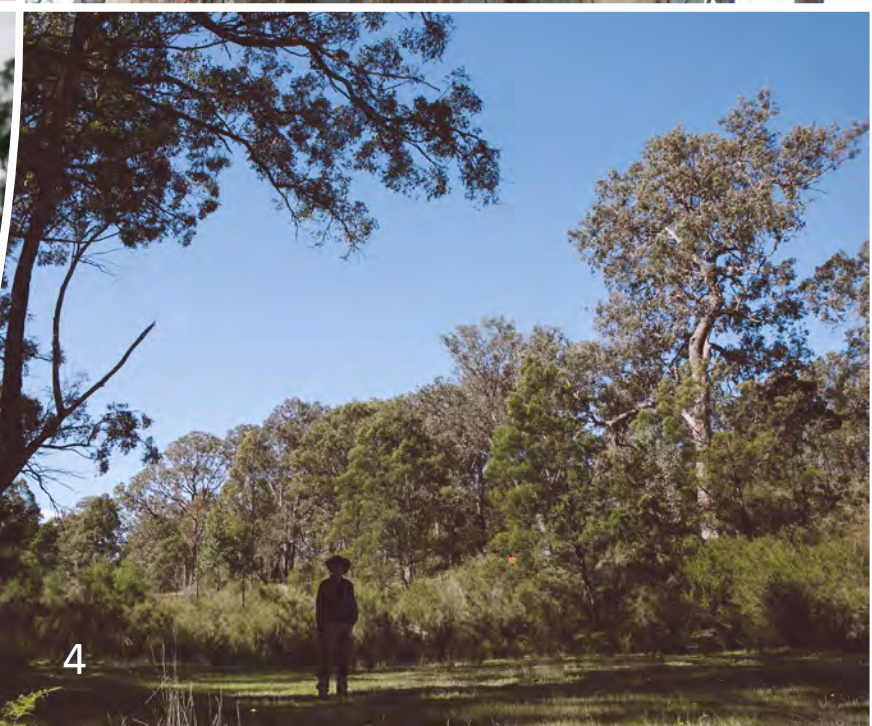
- Over 1 million hectares of native forest was burnt in the 2019/20 bushfires in Eastern Victoria – including over 80% of the East Gippsland region
- Millions of fauna were killed – the survivors are struggling to find enough suitable habitat. Unburned refuges are now more critical than ever before in our history
- The Fingerboards mine proposal area contains significant irreplaceable patches of remnant vegetation which Kalbar will destroy - some include endangered EVC's
- Mining will destroy over 788 mature hollow-bearing trees which provide critical habitat for a myriad of fauna including threatened species. 'Loss of Hollow-bearing trees' is a listed 'Threatening Process' under the FFG Act & EPBC Act. It takes over 100 years to form hollows in trees – they can't be replaced by offsets or quickly replanted
- Remnant native vegetation in the Fingerboards area is vital for landscape connectivity, allowing fauna to live in & move between areas such as farmed landscapes, state forests & the Mitchell River National Park



Rick Coleman appreciating an ancient Box tree on his farm. Kalbar want to mine this area & destroy important remnant vegetation.

## Remnant native vegetation in & near the mine project area

- 1. Rare remnant Redgum woodland along Chettles Rd where Kalbar will build an infrastructure corridor and private haulage road
- 2. Hollow-bearing Redgum tree at Saplings Morass Flora & Fauna Reserve – native bees are nesting in this hollow – honeycomb observed around base of the tree
- 3. Native grasslands at Fernbank – *Gippsland Red Gum (Eucalyptus tereticornis subsp. Mediana) Grassy Woodland and Associated Native Grassland (GRGGW)* – EPBC Critically Endangered– some of which will be destroyed by Kalbar’s rail siding
- 4. Stunning remnant vegetation with many mature Eucalypts on the Coleman property – set to be destroyed by Kalbar



Native vegetation values in & around Kalbar's proposed mine project area are too precious to mine!

- 1. Purple Diurus (*Diurus punctata*) orchid – FFG Threatened – growing in GRGGW (EPBC Critically Endangered) at Fernbank – would be cleared for Kalbar's rail siding ore transport option
- 2. Huge mature hollow-bearing Box sp. tree in bushland purchased by Kalbar for mining – trees like this are habitat (like a high-rise apartment block) for many mammals, birds, reptiles & insects

1

2





SENSITIVE  
RECEPTORS  
are real people...

Take a few minutes to observe..

- These are the faces & homes of *some* of the people whose lives will be ruined Kalbar's mine.. *There are **so many more** not shown here*
- Think about their lives, families, livelihoods, futures, the threats to their health & wellbeing, destruction of their 'place' in the world..
- Consider the impacts years of stress & fighting this mine is ALREADY having on them..
- With all this uncertainty, they can't make plans for the future - their lives are effectively on hold..
- They can't sell their properties – who wants to buy a house or property next to a noisy, dusty, toxic 1675 hectare open-cut mining operation?
- Most of them are ineligible for compensation from Kalbar – they're stuck in no-man's land with no way out
- Dangerous toxic dust will be imposed upon them, the air they breathe & the rainwater they catch – difficult to escape due to financial entrapment
- Many of them have felt bullied by Kalbar, with their concerns ignored – mental health impacts are serious & sustained – could lead to self-harm
- Let this abuse of real human beings sink in..

Ask yourselves 'is this ok?'





































Giant Forest Red Box with Aboriginal Cultural Heritage values – Marker Tree



Mature Box sp. tree next to where a centrifuge is planned







**VISITORS**  
**PLEASE RESPECT FARM BIOSECURITY**  
Please phone or visit the office before entry.  
Do not enter property without prior approval. Vehicles, people and equipment can carry weed seeds, pests and diseases.

PLEASE  
SHUT GATE

**NO  
OPEN CUT  
MINING  
HERE**





















Save lives, livelihoods and our kids' future

# STOP KALBAR

Protect trees with hollows

Green clean economy

FOOD BOWL NOT DUST BOWL

This is GUNAIKURNAI country

NO mines on Mitchell River

Save Gippsland's lakes

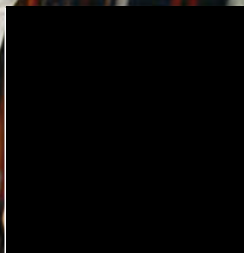


















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*'A few years ago, I applied to the Shire about subdividing my 6 acres.*

*They told me I couldn't do it because it was agricultural land – so how come a mining company can now use it for an industrial purpose?'*









