

# Submission Cover Sheet

Fingerboards Mineral Sands Project Inquiry and Advisory  
Committee - EES

# 815

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Request to be heard?: No

**Full Name:** James Walker

**Organisation:**

**Affected property:**

**Attachment 1:**

**Attachment 2:**

**Attachment 3:**

**Comments:** See attached submission

## **James Walker submission to Kalbar Mine proposal**

To: <https://engage.vic.gov.au/fingerboards-IAC>

### **History of mining**

Globally, the rapid expansion of lawless capitalism and industrial processes over the last few centuries has had severely detrimental effects on the natural environment. In Victoria, like the rest of Australia, and the rest of the world, the adverse environmental impacts are still accelerating.

The British, having established a foothold in Australia, proceeded to rapidly mine out its resources; the grasslands, forests, the flora and fauna, and the rocks and minerals of the earth, which were shipped back to Britain or to other colonies, or traded.

East Gippsland was settled from the mid-1800s. Cattle were run everywhere, from the beaches to the highest hills. Indigenous people were violently dispossessed. Gold mining from the 1850s led to gross sedimentation of many streams. Mercury was used to extract gold and large amounts of mercury still remain in Gippsland waterways.

The paper pulpmill at Maryvale, mining native forests, for decades discharged effluent containing mercury into Lake Coleman at the western end of the Gippsland Lakes system, adding to the mercury left by goldminers. Mercury is still entering the lake system and is thought to have handicapped and killed dolphins which live in the lakes.

In 1889, a permanent ocean entrance was constructed into the Gippsland Lakes, where previously the entrance was ephemeral and the lakes were a freshwater system that rose and fell according to the inflows from the rivers.

The irrigation land on the Latrobe River system drains saline water into Lake Wellington, also at the western end of the lakes, so now the lakes have saltwater intrusion from both ends of the lake system.

Increases in chemical and nutrient runoff from land (e.g. sewage, fertilizers, sediment) have led to regular algal blooms in the Gippsland Lakes.

Bairnsdale area is in a rain shadow and deemed to become drier by climate scientists.

### **The Commonwealth Environment Protection Legislation**

The Federal EPBC Act purports to protect nationally threatened species, and species on Commonwealth land and in Commonwealth waters, as well as sites of national environmental and cultural significance.

The Commonwealth EPBC office has been defunded in an attempt to push all responsibility for environmental protection onto the states. This is impossible because only the Commonwealth has the power to exercise some environmental protection functions, such as managing nationally threatened species or ocean assets beyond State boundaries.

The EPBC office has never been effective in protecting natural environments, mainly because of understaffing, lack of enforcement, and the environment minister overriding decisions of the department.

## **The Samuel Interim Report on the EPBC Act Review 2020**

“Australia’s natural environment and iconic places are in an overall state of decline and are under increasing threat. The current environmental trajectory is unsustainable.” (Samuel Interim Report Summary 2020 p.1)

This recent report makes relevant conclusions regarding operation of the EPBC Act which includes:

- It is not trusted by the community and is considered opaque
- It does not use the best available information
- It undervalues Indigenous knowledge in environmental approaches and management
- Monitoring is inadequate
- Lack of restoration, as offsets are not the best means of protecting environments
- Enforcement is inadequate

## **The Victorian species protection legislation**

The Victorian Wildlife Act 1975 purports to protect all native species.

The Victorian Flora and Fauna Act 1988 purports to protect native species that are likely to become extinct.

These Acts have not been effective, mainly because governments at all levels have failed to comply with the legislation. The words are there but the implementation is not. Mandatory provisions are ignored. More and more species are moving into the threatened categories and even critically endangered species are allowed to go extinct. The official list of threatened species, though large, is considerably smaller than the actuality.

Rather than try to redress this situation the Victorian government has reduced funding to the management agencies, so removing their capacity.

There is also more and more political interference in the independence of environmental managing and enforcement agencies.

## **The Victorian Auditor-General Office (VAGO) Report on Ramsar Wetlands September 2016 concluded (page x):**

‘There is limited evidence that all Ramsar sites are being effectively managed and protected from decline. There is also evidence of potential change in the ecological character of some sites, while changes at other sites cannot be fully determined due to limitations such as a lack of data.’

## **Figure 2A VAGO Report on Ramsar Wetlands 2016**

### **Case study: Third-party notification**

‘In March 2009, concerns were raised by a third party about an increase in salinity in Lake Wellington in the Gippsland Lakes Ramsar site. The Ramsar Secretariat notified the Commonwealth Government which then informed DELWP. The Commonwealth Government led an assessment of ecological character change and, in February 2012, concluded that:

*Based on the best available scientific evidence, the Gippsland Lakes Ramsar Site had not undergone human-induced adverse alteration in the critical components, processes and benefits/services since the time it was listed in 1982.*

At this time, an LAC for salinity at Lake Wellington was not set. The 2015 Gippsland Lakes Management Plan indicates an increase in salinity at Lake Wellington from 1986 to 2015. In reviewing the ECD for the site, DELWP developed a draft addendum to include an LAC for salinity at Lake Wellington. In 2015–16, after a further third-party notification, the site was reassessed against

this LAC. The findings will be included in the ECD addendum when this is finalised in consultation with the Commonwealth Government. *Source: VAGO based on information provided by DELWP.* Because the Kalbar Mine proposal will have impacts on both groundwater and flows to the Mitchell and Perry Rivers, there will be impacts on the Gippsland Lake system, a Ramsar site which is already seriously degraded. The lakes are also covered by Australian treaties with China; Japan and South Korea to protect habitat of migratory wading birds.

Any further reductions in fresh water flows to the Gippsland Lakes will only increase the rate of salinisation. Any further increase in the flow of toxins and nutrients into the Gippsland Lakes will only increase habitat degradation.

### **The Juukan Caves destruction by Rio Tinto**

The recent destruction of these caves of international significance by Rio Tinto indicates the complete disregard by the mining industry for anything but its own commercial interests.

### **The Stockman copper mine at Benambra**

This Benambra mine was originally operated by Denehurst Pty Ltd from 1992-96. State government ‘investment’ in the project totalled \$5.8 million; the company paid no royalties. The mine wiped out a rare vegetation type.

In 1998, Denehurst went into administration and abandoned the site, forfeiting its \$375,000 rehabilitation bond. The company left behind a dam containing 700,000 tonnes of tailings, leaking acid and heavy metals (zinc, copper, cadmium, manganese, lead and arsenic) into Straight Creek in the headwaters of the Tambo River. The dam had been constructed without a spillway and was at risk of breaching.

In 2006 the Victorian Department of Primary Industry rehabilitated the mine site and tailings dam at a cost of about \$7million. The tailings dam was exempted from any future mining licence in 2004 under the MRSD Act and following its rehabilitation was renamed Lake St Barbara (but entering the water was prohibited).

Between 2014 and 2017 Victorian governments approved reopening of the mine by Washington H Soul Pattinson Stockman PL and substantial enlargement of the still-leaking tailings dam. The residual risk of dam failure lies with the Victorian taxpayer.

### **Kalbar Fingerboards Project**

Extracted from a table in the Victorian government’s *Mineral Sands Fact Sheet 2019* is the following:

<b>Company and resource</b>	<b>Resource Estimate</b>
<b>Iuka Resources</b>	
Murray Basin	Proved and Probable Reserve (2014): 12,000,000 t @ 16.0% HM for 1,930,000 t HM *
<b>WIM Resources Pty Ltd</b>	
Avonbank	Indicated and Inferred Resource (2018): 311,800,000 t @ 4.3% HM
<b>Kalbar Resources</b>	
Fingerboards	Inferred resource (2013): 1,600,000,000 t. @ 2.2% HM
Mossiface	Inferred resource (2013): 130,000,000 t @ 1.7% HM

\* includes deposits in Victoria, South Australia and New South Wales

The figures from the above chart show that the yield of heavy metals from the Fingerboards project is far from the highest. There are other considerations of course.

Below is part of a table clipped from an Australian government publication *Critical Minerals Projects in Australia 2020* p.40

State	Critical mineral	Project name	Company name / ownership	Mineral inventory	Project status	Other information	Approvals
VIC	REE	Fingerboards	Kalbar Resources Ltd Australian owned, unlisted; Project owned by Kalbar Operations Pty Ltd, a private JV between unlisted Kalbar and private equity.	Measured Resource of 69 Mt @ 1.91% TiO <sub>2</sub> , 0.11% TREO, 1.26% Zircon Indicated Resource of 206 Mt @ 1.75% TiO <sub>2</sub> , 0.10% TREO, 1.10% Zircon Inferred Resource of 250 Mt @ 1.50% TiO <sub>2</sub> , 0.08% TREO, 0.90% Zircon Total Resource of 530 Mt @ 1.60% TiO <sub>2</sub> , 0.09% TREO, 1.00% Zircon, (8,689 kt contained TiO <sub>2</sub> , 490 kt contained TREO, 5,349 kt contained Zircon)	Feasibility study	<a href="http://www.fingerboardsproject.com.au">www.fingerboardsproject.com.au</a>	Retention licence

*Critical Minerals Projects in Australia 2020* p.40

*Critical Minerals Projects in Australia 2020* (see above) states that the Fingerboards mineral sands project is owned by Kalbar Operations Pty Ltd, and is a private (sic) private? joint venture with private equity. The Kalbar group is comprised of three separate corporate entities according to some websites.

Rio Tinto held the original exploration license for the rare earths lease area north west of Bairnsdale now proposed for mining. The lease was sold apparently, to Kalbar Resources in 2013.

Who these Kalbar companies are, and who the equity partners are, needs to be publicly disclosed, otherwise the public may assume that the corporate arrangements have a purpose to avoid liabilities or defraud the public. Are the equity partners government ministers or friends of government ministers or government bureaucrats, or actual or potential generous donors to governing political parties. Is Rio Tinto still the real owner?

*Critical Minerals Projects in Australia 2020* nominates the Fingerboards mineral sands project as a critical project but on what basis it is impossible to know. It is unlikely that if the project does not proceed, or is delayed, that anyone will die. That the National Party part of the Federal Coalition appears to be owned and run by the mining industry might be one political reason, and that the Victorian government is desperate to find work for CFMMEU members whose jobs are threatened by phasing out of coal-fired power stations in the Latrobe Valley and terminal depletion of Victorian native forest timber might be another reason.

A bigger set of problems arises with systematic destruction of the Gippsland Lakes, which are a potentially sustainable self-replacing asset in the long term, unlike mining.

Will there be a bond to cover land restoration and any default by the miner, and will the bond size and conditions be disclosed to the public? See the VAGO Rehabilitating Mines report of August 2020 which states that rehabilitation bonds often fall well short of the actual cost of restoration, and suggests that these bonds be reviewed periodically

Tax breaks and subsidies from government? Miners can probably write off most of their capital expenditure and running costs against tax. Fuel for miners is subsidized.  
Will governments provide free land or water, investment concessions, royalty free periods?  
Will this mining enterprise pay any council rates?

If the mine is to proceed will the minerals be transported by rail to Port Melbourne, or by truck to a port in South Gippsland? That is a major consideration for many people. To obtain any public trust in the project these issues should have been sorted out from the beginning.

## Conclusions

There are a lot of loose ends and ill-defined processes with regard to this proposal. What are the details for construction of the various dams? What is the plan for waste disposal?

The main single issue is water. The highly stressed environments likely to be impacted by this mine mean that only improvements to the freshwater supply should be considered. This would also mean that irrigators would not have to bid against well-heeled mining interests for water supply.

The mine should at least be put on hold until the water issues are resolved.

More fresh water could be provided to the Gippsland Lakes and wetlands of the Latrobe and Perry river systems when and if, for example, the Maryvale pulpmill and or the Latrobe Valley coal fired power stations are retired, or converted to using recycled water. These industrial institutions use many gigalitres of high-quality water.

Alternatively, the mining industry could come up with a dry separation process.

Any bond or insurance paid by the miner should be big enough to cover both short and long term mining impacts (which at this stage are being glossed over).

Subdivision of land owned by the miner should be banned.

**Attached:** Mass fish kill eastern Victoria 14Apr19. This article demonstrates the farcical nature of governance in Victoria, with a multiplicity of agencies each claiming another is the one responsible. So, every fish kill has a natural cause, as it couldn't be neglect or bad management of waterways.

**Attached:** Map Victorian rivers affected by mining sludge to 1886. From 'History: Rivers of Gold' <https://rivers-of-gold.com/history/>



# Mass fish kill in eastern Victoria due to salinity and other natural causes, authorities say

<https://www.abc.net.au/news/2019-04-14/fish-kill-near-ramsar-listed-lake-wellington-eastern-victoria/10998266>

ABC Gippsland, [Emma Field](#), 14 April 2019



[A fish kill has occurred in the main drain of Lake Wellington near Sale in Gippsland.](#) (ABC Gippsland: Jarrod Whittaker)

RELATED STORY: [Water Minister splashes \\$70m in response to fish kill final scientific report](#)

RELATED STORY: [We wrote the report on fish deaths in the Darling River. There are four reasons it could happen again](#)

RELATED STORY: [Thousands of fish found dead near Moruya](#)

Hundreds of fish have died near an internationally-recognised lake in eastern Victoria.

## Key points:

- Hundreds of carp have been found dead at Lake Wellington near Sale
- Regulators have blamed natural causes such as salinity for the deaths
- A scientist says the decline in water quality is due to drought, while advocates say it is a symptom of mismanagement of the waterways



Regulators and water managers have blamed "natural causes" such as salinity for the death of adult carp in the main drain of Lake Wellington near Sale.

Advocates for the Gippsland Lakes said the mass fish deaths were just another indicator of long-term mismanagement of the waterways, while a scientist said the impact of the drought was to blame for the decline in water quality.

Phil Ronalds, who lives near Lake Wellington, a Ramsar-listed wetland, raised the alarm about the dead fish earlier this week.



Mass carp deaths can deoxygenate the water, putting native fish at risk. (Supplied: Phil Ronalds)

He said diverting water from rivers for the nearby Macalister Irrigation District, and to supply Melbourne with drinking water, was part of the problem.

He said this fresh water kept the saline water at bay at Lake Wellington and across the extensive Gippsland Lakes network.

The Gippsland Lakes is a series of lagoons fed by seven rivers flowing down from Victoria's high country, towards the coastal town Lakes Entrance.



Much of the saline water that causes problems in the lake system is from the entrance being opened permanently to accommodate industry in the port.



[Federation University environmental scientist Jessica Reeves says the drought has devastated Gippsland Lakes.](#) (Supplied: Jessica Reeves)

### **Drought and summer bushfires contribute**

Federation University environmental scientist Jessica Reeves blamed the current drought and summer bushfires for a decline in water quality across the lakes and increasing salinity.

"[With] rising sea levels, deepening of the entrance ... and also the decreased rainfall, there just isn't enough fresh water coming in to dilute the system," Dr Reeves said.

"The overall salinity is increasing and particularly at the fresh water end such as Lake Wellington."

Dr Reeves has been doing research near Lake Tyers and said, because of the ongoing drought, its water levels were lower than people had seen in "living memory".

### **Confusion over cause of fish deaths**

Southern Rural Water (SRW) manages the irrigation water from Glenmaggie Weir, which draws on water from the Macalister River, including the drain where the fish was found.

They were notified about the mass carp deaths on Tuesday, and informed Victoria's Environment Protection Authority (EPA).

**"The EPA has confirmed this is one of several recent fish kill reports in the district, which are natural occurrences, typically caused by salt water ingress, not pollution," a joint statement from the two agencies said.**

SRW spokesman Gavin Prior said the EPA ruled the carp deaths were from natural causes.

"How they died is not our decision," he said.

"Our [role] is to report our finding to the relevant authority and in that case it's up to the EPA to make that decision."

However an EPA spokesman told the ABC, SRW made the call about the cause of the dead fish.

A request to clarify this with the environmental watchdog had not been received before publication.

A Victorian Department of Environment, Water, Land and Planning spokeswoman said the agency helped clean a few hundred European carp, which died on the shores of Lake Wellington last week in a separate event.

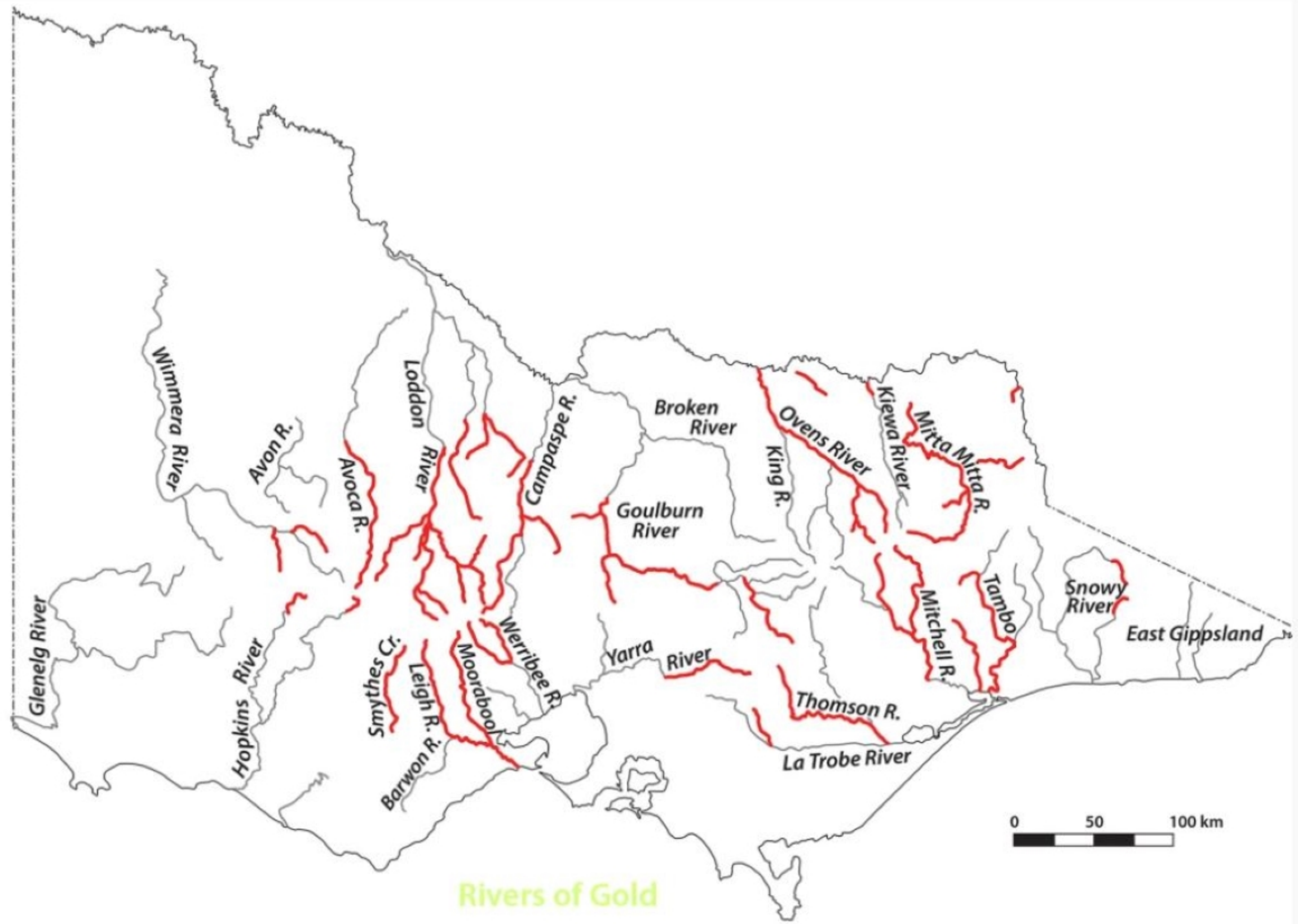
Martin Potts, who works on wetlands for Greening Australia, also blamed the decline in the quality of the lakes on the drought and the diversion of water from the rivers, but said the death of carp was good for the lakes system.

However, he said mass deaths could cause further environmental problems and indicated native fish would also be affected.

"A large carp dying can deoxygenate a cubic metre of water," he said.

"We lose oxygen. [This] then causes a black water situation, so you can have quite a large lot of deaths all at once."

*Editor's Note (15/4/19): An earlier version of this story incorrectly described Martin Potts as a Love our Lakes spokesman. He works for environmental organisation Greening Australia. The story has been amended accordingly.*



Victorian rivers affected by mining sludge in 1886, reconstructed from evidence in Sludge Board (1887).