

Submission Cover Sheet

Fingerboards Mineral Sands Project Inquiry and Advisory
Committee - EES

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Request to be heard?: No

Full Name: Cameron FitzGerald

Organisation: Southern Rural Water

Affected property:

Attachment 1: Southern_Rural_

Attachment 2: Southern_Rural_

Attachment 3:

Comments: See attached submission (offered in both Word.doc and Adobe PDF formats)

Southern Rural Water

Submission on the Fingerboards Mineral Sands Project Environment Effects Statement (EES)

Submission lodged on **27 October 2020** through the Victorian Government website:
<https://engage.vic.gov.au/fingerboards-IAC>

1. Overview

Southern Rural Water (SRW) welcomes the opportunity to respond to the Fingerboards Mineral Sands Project Environmental Effects Statement (EES).

SRW has been actively involved in the Technical Review Panel (TRP) that was established by the Department of Environment, Land, Water and Planning (DELWP) during the preparation of the EES by Kalbar Operations. Throughout this process, SRW has provided feedback pertinent to our regulatory role, to inform the development of the EES. The feedback in this response is consistent with our previous feedback.

2. The role of Southern Rural Water

SRW is responsible for regulating access to groundwater and surface water, and for the management of groundwater and surface water resources, in accordance with the powers delegated by the Minister for Water, and in accordance with the Water Act (1989).

In the context of the Fingerboards EES and any subsequent development of the mine these responsibilities will include:

- Licensing of groundwater take and use (Section 51 of the Water Act)
- Licensing of surface water take and use (Section 51 of the Water Act)
- Licensing the construction and operation of dams (Section 67 of the Water Act)
- Licensing the construction and operation of observation and production bores (Section 67 of the Water Act)

In addition to the licence determination process, SRW is also responsible for ensuring compliance with any licences that are issued, including; the volumes and rates of water taken, the construction and management of dams and bores to the required standards, the passing of surface water flows, and the monitoring and reporting requirements specified in any licence conditions.

Southern Rural Water also has a role in managing access to water resources through the development and implementation of statutory and local management plans, and through water sales (where appropriate). These management arrangements include the Mitchell River Basin Local Management Plan, and the Central Gippsland and Moe Groundwater Catchment Statement. These plans identify the limits on water availability, and the access arrangements including trading rules, and water restrictions.

3. Groundwater and surface water availability

As has been documented, Kalbar is proposing to secure a total of approximately 3GL/year of water required to operate the mine from a combination of two sources:

- Up to 3 Gigalitres per year (GL/year) 'winterfill' surface water licence from the Mitchell River and/or
- Up to 3 Gigalitres per year (GL/year) groundwater licence extracting from the Lower Tertiary Aquifer (Latrobe Group).

Availability of the identified surface water and groundwater resources is limited, and access to the volumes required is not guaranteed. Access to winterfill surface water entitlement on the Mitchell River will be subject to a water sales process, and the groundwater resources of the Lower Tertiary Aquifer are capped and can only be accessed by trading existing entitlement.

4. Water licensing requirements

As part of the delegated authority, when assessing licence applications SRW is required to take into account a range of matters including (but not limited to):

- relevant sections of the Water Act (1989)
- existing caps on water extraction
- relevant Ministerial Licensing Guidelines
- relevant design standards
- existing water management plans and local management rules
- stakeholder referrals and community submissions

The licensing process is intended to ensure that the take and use of water does not result in unacceptable impacts on other users, and the beneficial uses of the resource, including cultural and environment values. For large licence applications, where the potential impact of the take and use of water may be significant, SRW will require a detailed impact assessment.

Detailed impact assessments will be required for the proposed groundwater licence application, and the proposed surface water licence application. The EES has provided a significant amount of the technical understanding, however, additional information and clarification is likely to be required to support approvals by Southern Rural Water under the Water Act and full consideration of all legislative requirements, this is described below.

SRW also notes that any approvals under the Water Act do not discharge any obligations that may be required on the proponent by the Australian Government, including matters covered by the EPBC Act with regard to matters of national significance (e.g. Ramsar wetland obligations).

Mitchell River

Access to winterfill water from the Mitchell River will require a Section 51 Take and Use Licence. The information provided in the EES regarding impacts of the proposed take and use licence is not at a level sufficient for the application process. Applications for large volumes of entitlement, such as proposed by Kalbar, will require a detailed impact assessment to address matters under Section 40 of the Water Act. This will include (but is not limited to) impacts on the local and downstream environment, other users, and the waterway.

Groundwater

In addition to the modelling and impact assessment provided to support the EES process, a more detailed impact assessment will be required in support of any licence application to SRW. Key areas where further work may be required are:

- conceptualisation of the groundwater system around the proposed bore field and particularly further north where the overlying formations become more sandy (more permeable) and the aquifers rise up to the surface on the basin margin.
- test pumping to better inform the groundwater conceptualisation, utilising the additional investigation bores drilled by Kalbar in 2019, and possibly new bores, to provide a more robust assessment of the impacts of pumping and mine water seepage
- aquifer geometry, aquifer parameters, potential vertical pressure effects and leakage due to pumping (particularly along the basin margin)
- revised modelling and impact assessment
- peer review taking into account this additional work

Water Management Dams

Water management dams on waterways, and dams classified as Hazardous Dams will require licensing under Section 67 of the Water Act (1989). The information provided in the EES is not sufficient for this purpose, and a detailed engineering design and impact assessment of the proposed water management dams will be required by Kalbar as part of the licensing processes.

SRW is concerned about the level of consideration of operational requirements, dam safety obligations (including the allowance for the potential of cascading dam failures should upstream dams fail, impacting on downstream dams which also contain mine site sediments), and management of instream environmental and biodiversity impacts. This integrated assessment of the potential impacts of the water management dams is critical, as the potential level of water quality and environmental impacts of a dam failure, could also impact on the consequence category of the dam and subsequent engineering requirements.

There will also need to be consideration of waterways downstream of the dam, before they join the Mitchell River, and the need to maintain flows for these environments.

Tailings Storage Dams

Section 75 (1A) of the Water Act allows for the construction of a private dam (including a Tailings Dam) to be recognised under another Act. This may include the work plan approval provisions of the Mineral Resources (Sustainable Development Act) 1990.

SRW believes that in this case the tailings dams on site will be assessed as part of the Mine Work Plan, given Earth Resources Regulation are the relevant experts in regard to tailings dam operation, management and compliance.

Bores

Apart from mineral exploration bores related to the mine works, all other bores will require a bore constriction licence (and a works licence). All bores must be constructed in accordance with the latest Australian Standards for Water Bores.

5. Site Water Management

It is a requirement that all catchment water entering the mine site must be discharged to the natural receiving waterway.

Whilst there are proposed management arrangements to address this, SRW remains concerned about how this will work in practice, and how it will be monitored, managed and reported on, given the complexity of the proposed system, and the large numbers of dams required.

Kalbar will need to address these concerns as part of any licence application process. This includes the proposed use of offset water releases to manage upstream inflows into the mining site, and how ongoing compliance requirements will be addressed, including monitoring and reporting.

SRW notes the suggestion raised in the EES regarding the potential for the 2.2GL Fresh Water Storage to release water back to the Mitchell River at a time of maximum benefit (to the environment and/or downstream users). This is not in accordance with normal passing flow requirements for instream storages outside licenced harvesting periods.

In order for SRW to fully assess this opportunity, Kalbar will need to provide a more detailed proposal including a detailed assessment of the benefits and risks as part of the licence application process.

6. Mine water seepage

SRW is concerned that the potential impacts of water seepage from the numerous dams on site including the proposed tailing storage facility, into the local groundwater system beneath the mine have not been adequately addressed in the EES. Further work may be required by Kalbar to better quantify the potential impacts on the groundwater beneficial uses, and the neighbouring Mitchell River, and on existing groundwater and surface water licence holders, that may result from this activity.

7. Monitoring, reporting, contingency measures

Detailed monitoring and mitigation requirements will be included in any licences issued by SRW. These licences will only be issued if SRW is satisfied that all of our statutory obligations have been met. As part of any licences issued SRW will require a robust surface water and groundwater monitoring program to be put in place prior to, during and after the life of the mine, with clearly defined triggers and an associated contingency plans and mitigation measures. The monitoring results must be available to the community and local stakeholders through an open and transparent reporting framework. The scope of this monitoring program and the extent of the triggers and mitigation measures will need to be determined through the licensing process.

The Mine Works Licence should also include a requirement to implement a detailed Mine Water Management Plan to address these issues, and to report in detail on the water accounting information for the mine activities. This information should be submitted to an independent Environment Review Committee at regular intervals (annually as a minimum).

Yours sincerely,



Cameron FitzGerald
Managing Director