

Fingerboards Mineral Sands Project Inquiry and Advisory Committee
Department of Environment, Land, Water and Planning
State Government of Victoria.

26th March, 2021

Supplementary submission: Centrifuges

Dear members of the Inquiry and Advisory Committee,

I am writing to express my serious concerns over the proposed introduction by the Proponent of centrifuges, an issue which was not canvassed by the Proponent in the Environmental Effects Statement (EES), and whose late inclusion threatens to subvert the EES process.

Economic viability and mine abandonment:

Two very experienced mining companies, Rio Tinto, and Metallica, have previously chosen to discontinue consideration of the Fingerboards as a mineral sands mine. Given the propensity of mining companies to mine at any cultural, social or environmental costs in order to increase profits, this already questions the financial viability of the proposed mine. The Proponent now proposes the introduction of centrifuges into their processing instead of the originally stated use of a tailings dam. It is well-documented that the use of centrifuges will significantly increase the operating costs involved in the processing of tailings. This raises the major concern that the proposed mine may be only be marginally financially viable, at best. This raises the spectre of the venture failing after it has commenced mining operations, leaving a mine site in an unrehabilitated state. The nation is littered with unrehabilitated mining sites, and recent increases in the required bond are unlikely to be sufficient to ensure that this does not occur again.

Use of flocculants:

The use of flocculants is necessary for the centrifugation process. However, these agents are known to have detrimental effects on the environment, including toxicity to fish, which is an important issue for the proposed mine given its proximity to the Mitchell river, a heritage river that flows into the Gippsland Lakes and thus the environs of the Ramsar wetlands. An issue that is increasingly coming to the fore are endocrine disruptors. These are chemicals used in everyday life, or in manufacturing, which, at very low concentrations, can interfere with the endocrine systems of a wide range of species. The reproductive systems are significantly affected by such chemicals. The list of chemicals joining the known endocrine disruptors is increasing at an alarming rate. The Proponent needs to include an assessment of endocrine disrupting effects of the flocculants if they are to claim they have little effect on the environment.

Loss of scientific confidence:

The Proponent is pursuing the option of using centrifuges because they made a miscalculation in their expected water requirements. The magnitude of the miscalculation, around 50% underestimation, is staggering. This raises the question of what other errors and miscalculations have been made by the Proponent. There are many examples in the scientific literature where far smaller miscalculations have

come to light. In all reputable, high quality scientific journals, where such errors have come to light, the editors claim to lose all confidence in the work and inevitably such works are retracted. The same should apply to the EES submitted by the Proponent. Given the magnitude of the error and the very late stage at which this was announced, it is not possible to have any confidence in any of the scientific studies submitted by the Proponent. The EES should not be considered as a scientific document.

Yours sincerely,

Professor Helena C. Parkington

