

**IN THE MATTER OF THE  
FINGERBOARDS MINERAL SANDS PROJECT  
INQUIRY AND ADVISORY COMMITTEE**

**OPENING SUBMISSION ON BEHALF OF  
MINE-FREE GLENALADALE**

1. This submission is made on behalf of Mine-Free Glenaladale Inc (**MFG**).<sup>1</sup>
2. MFG is an incorporated association registered as a charity with the Australian Charities and Not for Profits Commission. It was formed by directly impacted landowners in 2014 in the wake of the 2014 Mt Ray Bushfire and in response to the proposed Fingerboards Mineral Sands Project (the **Project**), with its chief purpose being to represent the community of Glenaladale, including the residents, landowners, local and wider community members who will be impacted by the Project. Over time, MFG's representation has broadened to encompass community groups/associations, business owners (horticulture, farmers and small business) and the wider community who are opposed to the Project.
3. Its 657-page written submission in response to the Environment Effects Statement (**EES**) was compiled with input from over 100 community members who provided their time, knowledge and expertise to assist in understanding the vast number of documents that were exhibited.
4. In exercising its role, the Inquiry and Advisory Committee (**IAC**) will hear from a broad array of participants in the EES inquiry process. Within the constellation of participants, MFG is a voice for the community. It also regards itself as a voice for the environment.
5. Throughout the hearing, MFG will submit that the risks posed by locating a mine in this particular landscape (with its deep narrow gullies draining into major waterways

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<sup>1</sup> [Submission 813](#).

and its highly dispersive soils prone to erosion) are unacceptable and cannot be justified or resolved.

6. MFG will also make submissions and lead evidence on the very significant loss of native vegetation and habitat for threatened species that is proposed, the risks from exposure to radiation, and the dearth of evidence to support the Proponent's view that the Project is the best use of the land's resources.
7. Members and supporters of MFG will make submissions directly to the IAC on topics including the potential agricultural, health, heritage and socio-economic impacts of the Project. Members and supporters will also make submissions directly to the IAC on the impacts of dislocation from a community and landscape that they love and call home.
8. As a 'voice' for the community, MFG opposes the project in the strongest terms and seeks the following findings from the IAC:
  - a. The Project will have significant and unacceptable environmental effects and outcomes that are unable to be adequately mitigated, having regard to relevant legislation and policy, best practice, and the principles of ecologically sustainable development.
  - b. The EES and updated material addressing the addition of centrifuges is manifestly inadequate to inform an assessment of the potential environmental effects of the Project.

## THE PURPOSE OF THE INQUIRY

9. The IAC has been appointed by the Minister for Planning to hold an inquiry into the environmental effects of the Project.<sup>2</sup> Under its Terms of Reference, the IAC is to:
  - a. review and consider the EES, public submissions received in relation to the environmental effects of the Project and the reports and advice from the appointed DELWP independent peer reviewers;

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<sup>2</sup> *Environment Effects Act 1978*, s 9(1).

- b. consider and report on the potential environmental effects of the Project, their significance and acceptability, and in doing so have regard to the draft evaluation objectives in the EES scoping requirements and relevant policy and legislation;
- c. report its findings and recommendations to the Minister for Planning to inform his assessment under the *Environment Effects Act 1978*.<sup>3</sup>

10. The IAC's reporting obligation is expanded upon by clause 34 of the Terms which sets out the matters that the report must contain. In particular, the IAC is required to draw conclusions and make findings with respect to:

- a. the environmental effects of the Project and their significance and acceptability; and
- b. whether acceptable outcomes can be achieved, having regard to legislation, policy, best practice, and the principles of ecologically sustainable development.

11. It is therefore necessary to consider the concept of 'acceptability' and its proper construction in the present case.

12. An acceptable environmental outcome in the context of this case would be one where the existing environmental, landscape, social and economic values of this place are maintained, and not compromised.

13. In coming to its conclusions, the IAC must engage with:

- a. the *Mineral Resources (Sustainable Development) Act 1990*, and its purpose to encourage economically viable mining in a way that is compatible with the economic, social and environmental objectives of the State and the principles of sustainable development;<sup>4</sup>

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<sup>3</sup> Terms of Reference, [5].

<sup>4</sup> *Mineral Resources (Sustainable Development) Act 1990 (MRSD Act)*, ss 1 and 2A.

- b. the *Environment Protection Act 1970* and its subordinate legislation, as well as the *Environment Protection Act 2017* and the General Environmental Duty (**GED**) which comes into effect on 1 July 2021;<sup>5</sup>
  - c. the *Water Act 1989*, which importantly provides for the protection of existing catchment conditions;<sup>6</sup>
  - d. the *Radiation Act 2005*, which seeks to protect the health and safety of persons and the environment from the harmful effects of radiation;<sup>7</sup>
  - e. the *Flora and Fauna Guarantee Act 1988*, with its guarantee for all taxa of Victoria's flora and fauna to persist and improve in the wild;<sup>8</sup>
  - f. the *Heritage Rivers Act 1992*, which seeks to protect the significant nature conservation, recreation, scenic and or cultural heritage attributes of Victoria's heritage rivers, including the Mitchell River; and
  - g. the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and relevant policy statements, conservation advices, and plans for nationally listed threatened species, ecological communities and nationally listed migratory species.
14. In coming to its conclusions, the IAC (and ultimately the Minister) must also engage with the policy matrix of the *Planning and Environment Act 1987*. This necessarily includes planning policy considerations.
15. To achieve an acceptable outcome in planning terms, the Project must balance conflicting objectives in favour of achieving a 'net community benefit' and sustainable development for the benefit of present and future generations. This is the well-understood test of integrated decision-making under planning law.
16. The 'acceptability' of the Project also raises the overlapping but broader question of whether it is 'ecologically sustainable'. This is supported by the *Ministerial Guidelines for Assessment of Environmental Effects under the Environment Effects Act 1978*

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<sup>5</sup> The relevant assessment will be made under the Environment Protection Act 2017; see *Environment Protection Amendment Act 2018*, s 474.

<sup>6</sup> *Water Act 1989*, s 1(k).

<sup>7</sup> *Radiation Act 2005*, s 1.

<sup>8</sup> *Flora and Fauna Guarantee Act 1988*, s 4 (**FFG Act**).

(**Ministerial Guidelines**) which specify that the EES process is guided by the ‘need to assess the consistency of proposed works with principles and objectives of ecologically sustainable development’ (**ESD**).<sup>9</sup> As set out above, this proposition is also supported by clause 34 of the IAC’s Terms of Reference.

17. Accordingly, the IAC needs to make findings and recommendations on whether the Project is consistent with the principles and objectives of ESD as well as whether it will deliver a ‘net community benefit’.

18. The common definition of ESD is ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’.<sup>10</sup>

19. The well-known judgment of Preston CJ in *Telstra and Hornsby Shire Council*<sup>11</sup> outlines the constituent principles of ESD as including:

- a. sustainable or ‘prudent’ use of resources;
- b. integrated decision-making which ensures mutual respect and reciprocity between economic and environmental considerations;
- c. the precautionary principle;
- d. equity, both inter-generational and intra-generational;
- e. the conservation of biological diversity and ecological integrity should be a fundamental consideration; and
- f. internalisation of environmental costs into decision-making for economic and other development plans, programmes and projects likely to affect the environment.

20. All of these principles are relevant and applicable to the assessment of whether the environmental effects and outcomes likely to arise from the Project are acceptable.

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<sup>9</sup> *Ministerial Guidelines for Assessment of Environmental Effects under the Environment Effects Act 1978* (2006) 3.

<sup>10</sup> World Commission on Environment and Development, *Our Common Future* (1987) 44.

<sup>11</sup> *Telstra v Hornsby Shire Council* [2006] NSWLEC 133, [108]-[120].

## ENVIRONMENTAL EFFECTS

21. Insofar as they can be ascertained, the environmental effects of the Project are unacceptable and are unable to be adequately mitigated.
22. Key areas of concern for MFG include:
- a. water, particularly changes to the quality and quantity of groundwater and surface water and its consequences for beneficial uses, licenced users and the environment;
  - b. soils and tailings, and the resultant risks from constructing a mine in an area with highly dispersive soils prone to severe erosion;
  - c. radiation exposure and associated impacts on human health and the environment;
  - d. biodiversity loss, including the loss of more than 200 hectares of threatened and rare native vegetation and a significant number of large hollow-bearing trees;
  - e. economics, including the financial viability of the Project and its impact on existing local industries, businesses and landholders; and
  - f. rehabilitation, in a context where the Victorian-Auditor General recently published a report on the systemic regulatory failures for mine rehabilitation in Victoria and in which the Department for Jobs Precincts and Regions (**DJPR**) was identified as not effectively regulating operators' compliance with their rehabilitation responsibilities.<sup>12</sup>
23. With reference to the key issues identified in the Scoping Requirements,<sup>13</sup> MFG is particularly concerned about:
- a. Adverse effects on groundwater and surface water quality at all Project phases.
  - b. Changes to the availability of groundwater and surface water for beneficial and licenced users in the immediate and wider vicinity of the Project.

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<sup>12</sup> *Rehabilitating Mines: Victorian Auditor-General's Report* (August 2020)

<[https://www.audit.vic.gov.au/sites/default/files/2020-08/20200805-Rehabilitating-Mines-report\\_0.pdf](https://www.audit.vic.gov.au/sites/default/files/2020-08/20200805-Rehabilitating-Mines-report_0.pdf)> 1.

<sup>13</sup> *Scoping Requirements for Fingerboards Mineral Sands Project Environment Effects Statement*, March 2018 (**Scoping Requirements**) 14-24.

- c. Adverse effects on nearby and downstream water environments, including the heritage listed Mitchell River, the unique Perry River chain of ponds and the Ramsar listed Gippsland Lakes, due to changes to water quality, flow regimes and / or waterway conditions.
- d. Mounding and migration of groundwater from the backfilled tailings material along the mine path during operations, decommissioning and post-closure.
- e. Erosion, sedimentation and landform stability effects at all Project phases.
- f. Diminished social wellbeing and health due to exposure to radiation and hazardous materials during operations, rehabilitation, decommissioning and post-closure.
- g. Direct and indirect effects on native vegetation, ecological communities and flora species, including removal of large areas of endangered and vulnerable ecological vegetation classes (**EVCs**) and removal of the critically endangered ecological community of Gippsland Red Gum Grassy Woodland and Associated Native Grassland.
- h. Direct and indirect effects on native fauna and their habitats, including listed threatened and migratory species and communities, such as the New Holland mouse, White-bellied sea eagle, Swift parrot and Platypus.
- i. Effects on groundwater dependent ecosystems and the EPBC Act listed ecological communities, and adverse effects on the biodiversity values of the Gippsland Lakes Ramsar wetland of international importance.
- j. Economic effects which could result from the Project, including impacts on the existing local industries, businesses and landholders.
- k. The feasibility of using centrifuges to manage tailings in circumstances where there is no known precedent – in Australia or internationally – for the application of centrifuges to manage tailings in a commercial mineral sands project.

24. MFG will call expert evidence to address the matters above.

25. On the fifth day of MFG's case, members and supporters of the group will make submissions on other areas of significant concern including agriculture, heritage, health and socio-economics.

## INADEQUACIES AND UNKNOWNNS

26. MFG is deeply concerned about the state of the published EES.

27. While the *Environment Effects Act 1978* is silent on what might be included in an EES, section 3(3) requires the Minister to specify the procedures and requirements that are to apply to the preparation of the EES in an Order declaring the project to be public works.

28. Relevantly, sub-clause (iii) of the Minister's procedures and requirements provides that:

The level of detail of investigation for the EES studies should be consistent with the scoping requirements issued for this project and *be adequate to inform an assessment of the potential environmental effects (and their acceptability) of the project* and any relevant alternatives, in the context of the Ministerial Guidelines (emphasis added).<sup>14</sup>

29. On any view, the EES is manifestly inadequate to inform an assessment of the potential environmental effects of the Project.<sup>15</sup>

30. The various inadequacies of the published EES are documented in the expert evidence filed on behalf of MFG, with key themes including:

- a. a lack of baseline monitoring for key impact areas, including for groundwater and soils;
- b. a lack of detailed investigation, assessment and or analysis of potential environmental effects and risks;
- c. a failure to assess cumulative impacts; and

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<sup>14</sup> *Terms of Reference*, Attachment 1 'Decision on Project: Fingerboards Mineral Sands Mine' (18 December 2016).

<sup>15</sup> 'Effects' must include discussion of all potential direct, indirect, on-site and off-site effects as a result of the proposed action (as per Scoping Requirements, 14).



- d. a failure to properly consider the implications of a changing climate, including factoring such changes into mine management.
31. The Proponent's late addition of centrifuges has only compounded MFG's concerns. While the issue will be addressed throughout the hearing, it is worth noting for present purposes that the Proponent only advised the IAC of the potential use of centrifuges after discovering a key assumption underpinning the water balance in the exhibited EES was incorrect (an error in the order of around 3 GL/year).<sup>16</sup> Moreover, an unacceptable level of uncertainty remains regarding the use of centrifuges. In circumstances where there is no precedent for the use of centrifuges for mineral sands mining at a commercial scale – in Australia or the world – the information provided by the Proponent is not sufficient to allow proper assessment of the feasibility or environmental effects of the use of centrifuges.
32. MFG is also concerned that there remain significant unanswered questions in relation to the environmental effects of the Project. Of particular note:
- a. there are significant uncertainties about groundwater impacts, particularly how the major disturbance of the site through mining and emplacement of the tailings will influence recharge/seepage rates, water table levels and flow of groundwater towards surface water bodies and other aquifers in the area;
  - b. there is ongoing uncertainty regarding the response of the aquifer to pumping, the aquifer's extent and hydraulic parameters, the long-term viability of water supply from the borefield and the potential for greater inter-aquifer leakage (and thus impacts on existing bores and other values supported by groundwater);
  - c. the actual or likely effects related to soil erosion and soil dispersion (including tunnel erosion) remain unknown, as they have not been sufficiently identified or appropriately assessed as part of the EES;
  - d. the chemical hazards presented by tailings to human and environmental health remain unknown, as such hazards were not adequately assessed;

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<sup>16</sup> Letter on behalf of Kalbar Operations Pty Ltd to the IAC (18 January 2021) (**Tabled Document 42**).

- e. radiation exposure pathways for workers (including farm workers) and the public and environment are yet to be adequately assessed, along with the sampling of agricultural products downwind and downstream of the planned mine;
  - f. the effects on biodiversity are likely to be significantly understated. The EES was informed by assessments that took place after a bushfire and during a drought;
  - g. the Proponent has failed to provide a detailed discussion of what minerals are to be produced, the timing and quantities of production and commodity prices and exchange rates and their impact on mine viability;<sup>17</sup> and
  - h. there is a complete lack of specific and detailed financial costings for Project rehabilitation.
33. The expert evidence filed on behalf of MFG details the above gaps and flaws, and various others.
34. The published EES is insufficient for the purposes of section 3(3) of the EE Act. It is not consistent with the Scoping Requirements or the Ministerial Guidelines and, overall, is not fit for purpose. The inadequacy of the published EES has only been compounded by the late addition of new material and edits to address the use of centrifuges and new water modelling. Most critically, the exhibited EES does not allow for the transparent assessment of the environmental effects of the Project, and the evidence to date is also insufficient for that purpose.

## CONCLUSION

35. MFG has acted as a voice for the community in response to the Project since 2014. MFG now welcomes the opportunity to fully explore these matters with the IAC during the course of this hearing.

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Instructed by Environmental Justice Australia

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<sup>17</sup> See paragraph 14(a) above.