

**PLANNING PANELS VICTORIA
INQUIRY AND ADVISORY COMMITTEE
FINGERBOARDS MINERALS SANDS PROJECT (Project)**

**ENVIRONMENT PROTECTION AUTHORITY VICTORIA – CLOSING
SUBMISSIONS**

1. These closing submissions are made on behalf of the Environment Protection Authority of Victoria (**EPA**). Since its last submissions:
 - (a) The *Environment Protection Act 2017* as amended by the *Environment Protection Amendment Act 2018* came into effect on 1 July 2021 (the **New EP Act**);
 - (b) There has been additional guidance documents and updated publications released by the EPA, including:
 - (i) A revised version of **EPA Publication 1823: *Mining and quarrying – Guide to preventing harm to people and the environment (June 2021)***.¹ The revised sector guide includes new chapters on permissions, contaminated land and noise, in addition to information on common hazards, how to manage risks and an overview of legal obligations under the new Act and Regulations.
 - (ii) **EPA Publication 1992: *Guide to the Environment Reference Standard (10 June 2021)***.² This guide explains in detail how the ERS is to be applied. It is consistent with the EPA’s submissions to date but provides a more in-depth analysis and examples.³
 - (c) The Proponent has proposed the appointment of an Independent Technical Reviewer (**ITR**) and has provided a draft Terms of Reference (**draft ToR**) for this purpose;⁴

¹ Tabled Document 680.

² Tabled Document 683.

³ See in particular the provisions at p11 that explain the ERS must not be used as a proxy for attaining compliance with the GED and that proposals should not be designed simply to meet the quantified objectives.

⁴ See Tabled Document 542, entitled Technical Note 40: Independent Technical Reviewer (TN40).

- (d) The EPA has provided its first round of without prejudice drafting comments, with its next comments due to be filed by 26 July 2021; and
 - (e) The EPA has tabled copies of the final s50(3) request⁵ and the MOU between ERR and EPA dated 23 June 2021.⁶
2. These submissions focus on responding to matters in the Proponent's Part C submissions. Further responses regarding the drafting of mitigation measures will be addressed through the on the papers drafting process, with only NV17 the subject of detailed discussion in these submissions.

Uncertainty as to the quality and quantity of discharges to water

3. The Proponent in its Part C submissions identified four areas of uncertainty.⁷
4. With respect to uncertainty as to surface water and groundwater impacts, it is not just uncertainty as to the source of water as the Proponent has identified,⁸ it is also uncertainty as to the discharge of water. These are some of the matters on which the EPA has sought further information through its s50(3) request.
5. There remains significant uncertainty on a number of aspects of the proposed surface water discharges. The EPA as the regulator of the proposed discharge is still unclear as to the operational arrangement and circumstances for the active management of Water Management Dams and the Freshwater Dam, it requires explanation for changes in the water balance, needs further details as to where, how and when discharges will occur and the quality and quantity of such discharges. Accordingly the EPA is currently unable to determine the potential effects that the proposed surface water discharges to the Mitchell River may have and its consequential impact upon the specific environmental values of the ERS. Further detailed information has been requested and will be required before the development licence can be determined.
6. With respect to the uncertainty as to the seepage discharging to groundwater, the quality and quantity of that seepage is important information that will inform the EPA's

⁵ Tabled Document 684.

⁶ Tabled Document 682.

⁷ Being Tabled Document 684.

⁸ Kalbar Part C submission at [29].

assessment of the risk of harm to human health and the environment from waste associated with the Project.⁹

7. The predicted groundwater mounding arises from seepage of process water to the Coongulmerang aquifer. The water balance model predicts the coarse sand tailings will contain process water at the time they are placed in the mine void. It predicts that half the water that drains from those sand tailings after being placed in the mine voids will be recovered and reused and half will not be recovered and instead will seep to groundwater. For years 5, 8 and 15 that model predicts that 1.1 GL/year of process water' will seep to groundwater,¹⁰ although the Proponent has since submitted Technical Note 26 that predicts much lower seepage rates.¹¹
8. That seepage is process water that has been used to process the mined ore.¹² As it moves through the materials that have been returned to the mine void,¹³ the quality of the water may experience further chemical interactions that could further impact its quality. The quality and quantity of this seepage remains uncertain at this stage, although the EPA reiterates its position¹⁴ that whilst it requires further information for the purposes of its assessment of the development licence application, it is a matter for the IAC whether such information is required for its purposes.
9. With regard to paragraph 127 of Kalbar's Part C submission, EPA notes that the GED is not to prevent harm, it is to minimise the risk of harm to the environment or human health from pollution or waste so far as reasonably practicable. "Harm" is defined at

⁹ Noting the broad definition of "waste" at s3(1) of the New EP Act includes matter, including liquid, that is discharged or disposed of into the environment in a manner that alters the environment and matter that is discarded or abandoned, irrespective of any potential use or value. See too the definition of "industrial waste" at s3(1) of the New EP Act and the definition of "wastewater" at (e) as defined in the *Environmental Protection Regulations 2021*.

¹⁰ See Tabled Document 273, Expert Witness Statement Errata at pp3-5 and Tabled Document 274 Mr Muller Water Balance presentation (corrected).

¹¹ Kalbar's Part C Submission at [125].

¹² The water used in processing will be sourced from the Mitchell River, groundwater bores extracting from the La Trobe Group Aquifer, mine process water that has been treated by the DAF treatment plant and returned to the 'Freshwater' dam and possibly from 'clean water' onsite dams containing untreated water that does not contain any mine contact water. Obviously the water quality of the various waters will be different, and this may impact upon the quality of the water that seeps from the tailings that are placed in the mine voids and Perry Gully.

¹³ Being a mixture of fine tailings (in the form of a centrifuge 'cake' and containing flocculant), coarse sand tailings, overburden and possibly waste from the DAF treatment plant (further information has been requested to determine what the Proponent in this respect).

s4(1) of the New EP Act and broadly speaking means an adverse effect of whatever degree or duration.

10. Avoiding seepage to groundwater is consistent with the GED and the guidance prepared by ERR, which identifies that, ideally, the goal should be to design a water balance model that achieves a nil discharge of mine wastewater.¹⁵
11. It is also noted that the sector specific guidance at **EPA Publication 1823: Mining and quarrying – Guide to preventing harm to people and the environment** (June 2021)¹⁶ recognises that “seepage from tailings storage facilities and soil and waste rock storage” are common sources of harm.
12. To the extent that the EPA has sought a recommendation in relation to use of centrifuges to dewater the sands tailings,¹⁷ the Proponent appears to have misunderstood this recommendation. The EPA’s recommendation is not that it be done, but rather that it be considered. If it is not reasonably practicable, then a brief explanation as to why this is the case would assist the EPA.

Ensuring the EMF is enforceable

13. In Technical Note 35,¹⁸ the Proponent states:

“It is proposed that the preparation and approval of the EMF would be a condition of both the Incorporated Document and the Work Plan. This is consistent with the approach taken in relation to the Stockman Base Metals Project where the Minister assessed that the EMF should be ‘included in, and/ or required through,’ both documents. This would mean any failure to comply with the EMF would be a breach of both approvals and enforcement action could be taken if the regulator considered it justified.” Emphasis added

14. Clause 6.2.6 of the current draft of the Incorporated Document satisfies this,¹⁹ however the proposed condition in relation to the mine licence area remains outstanding and presumably will need to be a recommendation made by the IAC. The EPA supports a recommendation by the IAC for a condition of the mining licence (or work plan if the

¹⁵ ERR *Guidelines for the management of water in mines and quarries* at section 5, a copy of which is provided with these submission and is also available at: <https://earthresources.vic.gov.au/legislation-and-regulations/guidelines-and-codes-of-practice/guidelines-management-of-water-in-mines-and-quarries>

¹⁶ Tabled Document 680, see p27.

¹⁷ See EPA’s Part B Submission (Tabled Document 486) at [87].

¹⁸ Tabled Document 533, pp2-3.

¹⁹ Tabled Document 692, Revised Draft Incorporated Document version 3 (19 July 2021).

IAC considers that more appropriate) that will ensure the EMF is binding and enforceable.

The EPA supports the current drafting of Clause 6.5 (Noise Management Plans) of the Incorporated Document

15. The drafting of the Noise Management Plan provisions of the Incorporated Document as presently proposed is acceptable to the EPA.
16. The Proponent has drafted the provisions so that the plans are to be to the satisfaction of the responsible authority in consultation with the EPA. This is considered appropriate, particularly given the EPA is not a referral authority for noise impacts (as no development licence is required in relation to noise). This is consistent with the approach of the Tribunal in *Iluka Resources Limited v Horsham Rural CC*²⁰ where it concluded:

“we do not consider that any statutory onus should be placed on agencies such as DEDJTR or the EPA to approve or be satisfied about certain matters by way of conditions in the permit when such authorities are not referral authorities under the planning scheme.”²¹

17. As presently drafted, clause 6.5.1 sets out as an “appropriate example” option 2 of the Proponent’s three options pertaining to the noise mitigation measure at NV17. This is the preferred option of the EPA, as it provides for the construction noise management plan to be generally in accordance with Chapter 4 of the EPA Publication 1834 (being the EPA guide that relates to construction noise).

Subject to changes, the EPA support the proposed ITR (TN40)

18. The EPA is supportive of the proposed Independent Technical Reviewer (**ITR**), subject to the following observations:
 - a) it is essential that the ITR be funded by the proponent consistent with the proposed Mining Licence condition set out at paragraph 15(d) of TN40;
 - b) the proposed conditions at 15(b), (c) and (d) of TN40 that ERR approve both the ToR and the appointment of the ITR is supported, subject to ERR confirming it is in a position to fulfill that role. The EPA considers that if the EPA’s expertise is

²⁰ (Amended) [2017] VCAT 107

²¹ At [14]. See also [56]

required in relation to the ToR or the appointment of the ITR, then ERR can informally seek this assistance, consistent with the terms of the MOU between them dated 23 July 2021;

- c) as was the case in the conditions for the Stockman’s Base Metals Project (**Stockman’s Project**), the mining licence conditions for the current project should include a requirement that ERR be informed within 14 days of any member of the ITR resigning;²²
- d) the ToR should be amended to expressly require that the ITR include members with expertise in noise and air quality (dust)– this is expanded upon below;
- e) it is critical that the ITR has an appropriate level of independence and expertise – this is expanded upon below and subject to noise and dust expertise being included what is presently proposed is acceptable to the EPA;
- f) the ITR should review the Project design and documentation with a view to ensuring it appropriately responds to the GED;
- g) it is unclear why a 24 month reporting period has been chosen.²³ For the North East Link Project (**NELP**) and West Gate Tunnel Project, reporting every 6 months was required. Whilst it is acknowledged that the reporting timeframes for those projects may have (at least partly) related to government audit requirements,²⁴ a 24 month reporting period, even with the higher risk activities to be audited “more frequently” is not supported by the EPA and it instead recommends a substantially shorter period;
- h) clause 24 of the draft ToR appears to have a typo – where an annual reporting period is envisaged it is presumed information from the previous 12 months is relevant, not the previous 6 as it currently states.

²² See Tabled Document at condition 5, which states: “*The Licensee must inform the Department within 14 days of the resignation of any member of the ITR. Prior to the appointment of new member/s, candidates must be endorsed by the Chief Inspector. The Licensee must ensure that ITR Panel includes at least one member who is an Auditor appointed under section 53S of the Environment Protection Act 1970.*”

²³ Condition 19(a) of the draft ToR at TN40.

²⁴ For example, if required to be included in reports prepared by the Victorian Auditor General.

19. The appointment of an EPA accredited Environmental Auditor²⁵ was a recommendation of the IAC in the Stockman Base Metals Project (**Stockman**)²⁶ and NELP.²⁷ If the IAC is minded to include a similar requirement for the ITR for this matter, the EPA would be supportive of that decision, however in the EPA's submission what is most critical for the ITR is that it have independence and appropriate expertise.
20. The process for becoming a statutory auditor is such that statutory auditors are likely to be suitably independent and, within their accredited area, suitably expert. However, the EPA accepts that members do not need to be statutory auditors provided their independence and expertise can be illustrated by alternative means.
21. The EPA recommends the explicit inclusion of members of the ITR with expertise and experience in noise and air quality (dust). Given the duties of the ITR to "monitor, review and report on compliance with statutory authorities"²⁸ such expertise is clearly relevant, with the potential for negative amenity, environmental and human health impacts to arise from noise and air if not properly managed evident from the ESS, the evidence and the submissions heard by the IAC for this hearing. The current project can be contrasted with the Stockman's Project, where dust and noise were not included in the list of matters the ITR was to advise on, presumably because the mining was to occur underground and the IAC explicitly found that noise and dust was not identified as an area of concern through either the EES or submissions.²⁹

²⁵ Which under the New EP Act is a person appointed as an auditor by the EPA in accordance with the provisions set out in Division 1 of Part 8.3 of the New EP Act.

²⁶ In Stockman, the IAC observed:

"The Inquiry sees merit in utilising an EPA accredited Environmental Auditor. Clear guidelines are in place that establish, amongst other things, high standards of expertise for appointment, there is an expectation that a multi-disciplinary approach will be adopted and that 'In exercising their functions and duties pursuant to the Act or other acts, environmental auditors owe a primary duty of care to the environment and to the people of Victoria above all others (including their clients).' The expertise of EPA Category B (Industrial Facilities) and Category C (Natural Resources) auditors is directly relevant to the functions relating to surface and ground water. Where there would be benefit from accessing specific knowledge or expertise regarding the Tambo catchment (there appeared to be consensus at the Hearing that Dr Hart would be such person), the ITR could be expected to draw on that resource. While an EPA appointed auditor could also draw on dam engineering expertise, the Inquiry accepts the submission that this is a critical element requiring independent review and the appointment of an ITR for the TSF construction may be a person with this expertise, rather than an EPA environmental auditor." Stockman Base Metals Project EES Inquiry and Advisory Committee Report PPV [2014] 120 at pp146-147.

²⁷ Refer to paragraph 12(a) of TN40.

²⁸ Draft ToR, clause 17.

²⁹ Stockman Base Metals Project EES Inquiry and Advisory Committee Report PPV [2014] 120 at p49, where it stated: *"Impacts from noise, dust and blasting were not identified in the EES or submissions as issues of concern as all mining, including blasting, is proposed to occur underground and there is limited potential to generate a dust load or noise to the surrounding environment."*

22. In addition, as Mr Delaire has explicitly acknowledged,³⁰ the noise modelling and mitigation measures for noise will need to be refined and verified. These are matters that the EPA submits would greatly benefit from having input and overview by an ITR with relevant noise expertise and experience. Likewise, further consideration should be given at the project design stage as to whether all reasonably practicable measures to reduce noise and vibration impacts have been implemented.
23. Finally, the EPA wishes to observe that the appointment of the ITR will not discharge or supersede the EPA's role in any way. Nor will the EPA be bound by any recommendations or findings the ITR may reach in the determination of the development licence application before EPA. For example, if the EPA were to determine that there had been non-compliance with the provisions of the New EP Act by the Proponent, the EPA would not be restrained by any contrary view formed by the ITR. It is also evident that the EPA will require detailed responses to the information it requested in its s50(3) request sent in July 2021 (and any subsequent requests it may choose to issue) before it makes a decision - the appointment of an ITR will not negate this requirement.

Mitigations Measures

24. The final response of the EPA with respect to the proposed mitigation measures is not due until 26 July 2021.³¹ However, there are a number of comments regarding mitigation measures that warrant specific comment in light of matters raised in Kalbar's Part C submissions.
25. First, it is important to note that the EPA's submissions in October 2020 made specific recommendations on the expectation that the Project would be assessed under the *Environment Protection Act 1970* and that there would be transitional provisions to deal with the commencement of the New EP Act. Once it became apparent that the Project would be determined under the New EP Act, a number of changes to the EPA's recommendations resulted.
26. It is fair to say that some experts responded to the EPA's invitation to amend their recommendations in light of the commencement of the New EP Act more fully than

³⁰ Refer to Kalbar, Part C Submissions at [372] and following.

³¹ Consistent with the IAC's revised dates set out in Tabled Document 687.

others.³² The EPA considers that there is still room for improvement in how the Project design and documentation responds to the GED. Accordingly, the EPA seeks a recommendation that this be included in the remit of the ITR.

27. The EPA is not seeking that all project mitigations be recast to show how the Project will comply with the GED, but simply that the requirement be acknowledged and appropriately accommodated, particularly given the manner in which “mitigation measures act as a checklist for the proponent, its consultants and decision makers in future approvals”, to quote the Proponent’s submissions.³³

The role of quantitative performance measures

28. The EPA is not submitting that there is no place for quantitative performance measures (numerical criteria) in mitigation measures, but rather it is important not to confuse compliance with such measures as satisfying the GED. It is for this reason that the EPA seeks specific acknowledgement and modification of the mitigation measures to explicitly recognise the GED in addition to numerical criteria.
29. This nuance is appropriate given the mitigation measures respond not simply to a single act, such as the New EP Act or the MRSD Act, but rather to a range of acts relevant to the broader compliance framework. This is clear from the information set out in the EMF.

Noise

NV17

30. The EPA strongly prefers Option 2 proposed by the Proponent but amended to clarify that the ITR’s approval must be sought in relation to nighttime works that are audible inside habitable rooms.

Option 2 – Apply Chapter 4 of EPA Publication 1834 in full

Construction noise from the Project must be in accordance with guidance provided at chapter 4 of EPA Publication 1834 (Civil construction, building and demolition guide). Construction noise that is audible inside a

³² Refer to the EPA Part B submissions (Tabled Document 486) at [23] to [28] and EPA’s Part A submissions at [25] and [45]-[47].

³³ Kalbar Part C submissions at [87], emphasis added.

habitable room of a residence is permissible if approved by the ITR as ‘unavoidable works’ or ‘low-noise or managed impact works’ in accordance with Chapter 4.4 of EPA Publication 1834.³⁴

31. Options 1 and 3 are opposed by the EPA. The Proponent has acknowledged that it can “work with any of the options put forward”. It has indicated option 1 is its preference, with option 2 being its second preference.³⁵
32. Option 1 is not appropriate as it seeks to apply the noise protocol (which relates to operational noise) to all activities, that is to both construction and operational activities.
33. The Noise Protocol has been carefully developed to address operational noise. The manner in which impacts are managed and noise is to be assessed has been developed with this in mind. There are impacts that can occur during construction, such as loud banging and transient noises, where the amenity impact is not adequately captured by the $L_{Aeq,30min}$ measurement used to assess operational noise under the Protocol.
34. Moreover, the Noise Protocol has been developed with specific variations for the earth resources industry, including mining, so that activities that might otherwise be classified as “construction” activities (such as overburden removal prior to extraction of ore) are treated under the operational noise provisions: see in particular clause 52.
35. Extending the application of noise limits to construction activities other than those already taken into account by clauses 52-55 and Table 4 of the Noise Protocol³⁶ is inconsistent with the established framework.³⁷
36. Noise criteria that may be sought in regard to out-of-hours construction works (for example managed-impact works as described at Chapter 4.4. of EPA Publication 1834) are to be established to ensure that noise is not unreasonable. This has been developed having regard to the definition of unreasonable noise in section 3(1) of the New EP Act.³⁸ It is the provisions set out in EPA Publication 1834 that are best equipped for managing construction noise.

³⁴ Underlined words added by EPA.

³⁵ Kalbar Part C submissions at [374] and [382].

³⁶ **EPA Publication 1826.4: Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues (20 May 2021) (Noise Protocol)**

³⁷ See too Clause 33-36 and in particular 35(d) which sets out the operational noise limits relevant to the current project.

³⁸ A copy of the New EP Act is Tabled Document 709.

MOU between EPA and ERR

37. Technical Note 25³⁹ set out the Proponent’s understanding of how complaints concerning offsite impacts would be handled. That document included a copy of an MOU between ERR and EPA dated 25 May 2018. As previously noted by the EPA,⁴⁰ that MOU was in the process of being revised.

38. The current MOU is dated 23 June 2021 and a copy has been provided to the IAC⁴¹

39. The purpose of the MOU between the EPA and ERR is:

“To make arrangements that enable optimal use of scientific and regulatory capability at EPA and ERR to protect human health and the environment from pollution and waste that arise from earth resource industries. It is an expectation of government, industry, and the community, that ERR and EPA work together in a way that is collaborative, effective and efficient without compromising the protection of human health and the environment.”⁴²

40. In terms of compliance, it is made clear that each organisation is responsible for compliance monitoring, responding to reports of non-compliance and complaints, and conducting enforcement action consistent with its statutory responsibilities.⁴³

41. There is a recognition of the common or overlapping powers, and an explicit acknowledgement that:

“EPA has a broad role in regulating the impacts of earth resource industries to environment and human health from pollution and waste, and this role is not limited to the specific activity permitted by EPA.”⁴⁴ [emphasis added]

42. The delineation of the roles of the ERR and EPA is also dealt with at clause 6.2, which provides:

- “6.2.1. ERR is the lead regulator for impacts to the environment and public safety from earth resources industries. ERR may request specialist advice and support from EPA as is necessary and to the extent permitted by law.*
- 6.2.2. EPA also has a regulatory role when dealing with significant community concern regarding environmental and human health impacts related to earth resource industries. EPA and ERR will exercise its compliance powers*

³⁹ Tabled Document 390.

⁴⁰ EPA’s Part B submission, Tabled Document 486 at [48]-[50].

⁴¹ Tabled Document 682.

⁴² MOU between ERR and EPA dated 23 June 2021, clause 2.1 (Purpose).

⁴³ MOU at Schedule 2, Clauses 5-6.

⁴⁴ MOU, Schedule 2, cl 5.2.1.

within its own authorising environment and will inform each other as appropriate and to the extent permitted by law.”

43. The EPA trusts that this, together with the response from ERR,⁴⁵ provides sufficient information for the IAC in terms of how complaints about dust, noise or other environmental issues will be managed.

Conclusion

44. The EPA appreciates the substantial efforts of the IAC, the Proponent and the submitters in this process. It trusts that its involvement in the process, both as a submitter and as a decision-maker in relation to the development licence application, has been of benefit to the IAC, particularly given the introduction of the New EP Act.

SERENA ARMSTRONG

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Instructed by Environment Protection Authority of Victoria

21 July 2021

⁴⁵ Refer to Tabled Document 497, answer 7 on pdf 4.

Attachments

1. *Iluka Resources Limited v Horsham Rural CC (Amended)* [2017] VCAT 107
2. *Stockman Base Metals Project EES Inquiry and Advisory Committee Report* PPV [2014] 120
3. Earth Resources Regulation (ERR) Guidelines for the management of water in mines and quarries: <https://earthresources.vic.gov.au/legislation-and-regulations/guidelines-and-codes-of-practice/guidelines-management-of-water-in-mines-and-quarries>
4. EPA Publication 1826.4: Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues (20 May 2021) (Noise Protocol).