

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

ENVIRONMENT PROTECTION AUTHORITY VICTORIA – OPENING SUBMISSIONS

EPA's Role and Functions

1. The Environment Protection Authority Victoria is an independent statutory authority. Its objective is to protect human health and the environment by reducing the harmful effects of pollution and waste.¹
2. To date, EPA has had several roles in relation to the Fingerboards Mineral Sands Project (the **Project**):
 - (a) as a member of the Technical Reference Group (TRG). In that role, EPA has provided advice with respect to its legislation, subordinate legislation, policies and guidance, together with information about the significant changes due to take effect with the transition to the new environment protection regime;
 - (b) as a submitter to the EES: The EPA has made submissions (Document 514 and 514b) in relation to the EES;
 - (c) advising on the draft planning scheme amendment pursuant to Ministerial Direction 19. In the context of the Project, the EPA's advice has largely overlapped with EPA's role as a submitter to the EES;
 - (d) considering the works approval application (the WAA), which will transition to a **development licence application** on 1 July 2021;² and
 - (e) as a scientific based regulator its internal experts with appropriate technical knowledge have attended relevant conclaves as observers and contributed input to inform EPA's submissions on the EES and consideration of the WAA in addition to being involved in the TRG.
3. If the Minister determines the environmental effects of the Project are acceptable, the EPA will continue to be involved in the following key respects:

¹ Section 6(1) of the *Environment Protection Act 2017*.

² New EP Act, ss 470 & 474.

- (a) it will have consultation or approval roles,³ consistent with legislative obligations and requirements under approved documents (for example, in relation to the incorporated document proposed for Amt C156egip and the noise, air and water risk treatment plans under the proposed mine work plan);
 - (b) it will be the decision maker in relation to the WAA/development licence application, which is due to be determined by no later than **31 December 2021**⁴; and
 - (c) it will have general regulatory and enforcement roles consistent with its obligations under its legislation.
4. With respect to EPA's assessment of the WAA/development licence application, the EPA is still in the relatively early stages of that process. Given this, EPA reserves itself from statements of support, recommendation or requirements in relation to the WAA/development licence.
 5. EPA's submissions to the IAC should be understood as preliminary observations which may change as the EPA undertakes more detailed assessment of relevant materials. No part of this submission should be relied upon by any person as being indicative of EPA's final decision regarding whether a development licence or any other statutory authorisation will, or will not, be issued in respect of the Project.
 6. The EPA will have regard to all relevant public submissions made to the IAC under the *Environmental Effects Act 1978 (EE Act)*, attend the public hearings, will have regard for the Minister for Planning's assessment of the EES and will consider further information, such as that provided in response to outstanding s 22 notices, before it determines the WAA/development licence application.
 7. During the IAC hearing, EPA has a dual role:
 - (a) in its role as a submitter: participating in the IAC;
 - (b) in its role as a decision maker: considering evidence and submissions that relate to the WAA/development licence application.

³ As currently exhibited the EES has these roles as "to the EPA's satisfaction". EPA has submitted that a consultation role is more consistent with the relevant legislative setting.

⁴ Pursuant to the s67A agreement, a copy of which is at document 225.

8. The EPA is the primary regulator of discharges of waste to surface water and groundwater from mining and quarrying industries. EPA is also responsible for advising on monitoring of air quality and noise emissions and has responsibilities when responding to referrals for mining from other government agencies.
9. It is important to keep in mind that Earth Resources Regulation (**ERR**) is the primary regulator for mining and quarrying, as per its regulatory functions under the *Mineral Resources (Sustainable Development) Act 1990 (MRSD Act)*.⁵

The WAA/development licence application – content and timing

10. The EPA's permission is required for discharges to surface water and groundwater. Permission is not required for discharges, emissions or deposits to the atmosphere or land that are in accordance with the MRSD Act.
11. The WAA was submitted by the proponent on 22 July 2020 and advertised with the EES.
12. As the IAC is aware, the primary water discharges from the mining activities will be:
 - (a) controlled discharges to the Mitchell River through the release of water from the Freshwater Dam. That water will contain mine contact water⁶ that has been treated by the DAF water treatment plant. Depending on climatic and operational conditions, the mine contact water may be diluted in the Freshwater Dam by water taken from the Mitchell River and, possibly,⁷ groundwater from the La Trobe aquifer;
 - (b) uncontrolled discharges to the Mitchell River and Perry Rivers in the event of spillage from the mine management dams – at present the proponent has filed evidence of a 3.4% risk of spillage to the Mitchell River and a 1% risk of spillage to the Perry River;
 - (c) discharges to groundwater, primarily associated with seepage from the coarse sand tailings that are not recovered by the underground drains. This

⁵ EPA Publication 1823, pp 4 and 13.

⁶ Mine contact water is defined in subsection 5.2 of the WAA as being “*run-off that comes into contact with the mine void and other disturbed mine areas*”.

⁷ The Part A submission indicates the Freshwater Dam will contain both fresh water and groundwater but this does not appear to be consistent with the image shown in the water balance diagram. See Part A submission, Document 243, at [46]-[47].

in turn could impact surface water qualities where groundwater feeds into surface water.

13. Whilst evidence has been filed that considers potential discharge of water to the Perry River, it is the EPA's understanding that permission is not currently sought through the development licence for discharge to the Perry River. If such permission were to be sought, it would need to go through the formal development licence application process.
14. The EPA issued a section 22 notice on 22 December 2020 (**Original Notice**), seeking further information. The Proponent's initial response to that notice contained insufficient information for the EPA. The Proponent indicated it will not be in a position to respond to all of the matters in the Notice until a number of Project design matters are more fully resolved. It has committed to submitting this information to the EPA after the Minister for Planning has provided an assessment of the environment effects statement for the Project.
15. The EPA intends to issue a further s22 notice (which will supersede the Original Notice) to clarify the information requested in the Original Notice and seek additional information in relation to the New EP Act and how the GED will be satisfied. The EPA will provide the IAC with a copy of that notice when issued.
16. The EPA notes the proposed sequence of approvals, whereby the WAA has been advertised jointly with the EES,⁸ prior to the Mine Work Plan application being lodged with ERR may have contributed to the resulting insufficiency in information.
17. Specifically, key information that EPA requires in order to make its assessment of the WAA/development licence application and to draft appropriate conditions, should it be minded to grant an approval, is likely to turn on how the mine will be constructed and operated. There will be greater certainty about these aspects once a Mine Work Plan has been submitted to ERR and once ERR has identified the extent to which the Mine Work Plan is satisfactory (as well as documents that form part of that plan, such as the Risk Management Plans and the Risk Management Treatment Plans).

⁸ S20AA of the EP Act 1970

18. EPA is aware that there are a number of other mineral sands projects in the preliminary stages of the EES process.⁹ EPA will therefore be following this IAC hearing with a view for how the permissions application and consultation process can be efficiently and effectively managed come its involvement in these future projects.
19. In order to address the sequencing issues discussed above and to allow sufficient time for the EPA to be provided with and consider the further information it requires, the time for the EPA to determine the WAA has been extended until 5pm **on 31 December 2021**.¹⁰
20. From 1 July 2021, the WAA will be deemed an application for a development licence.¹¹ It will be assessed under the New EP Act.¹²

Introduction of the New Environment Protection Act and subordinate legislation

21. The *Environment Protection Act 2017 (EP Act 2017)* came into effect on 1 July 2018. In its current form, it relates primarily to administrative, governance and some procedural matters. Most significantly for the purposes of these submissions, it specifies the objective of the EPA, described at paragraph 1.
22. Currently, and until 1 July 2021, the primary environmental protection legislation is the *Environment Protection Act 1970 (EP Act 1970)*. On 1 July 2021 the EP Act 1970 will be repealed.
23. From 1 July 2021, the remaining provisions of the *Environment Protection Amendment Act 2018* come into effect (**EP Amendment Act 2018**).¹³ As of that date, the *Environment Protection Act 2017 (as amended)* will be the primary environmental protection legislation. These submissions generally use the expression “the **New EP Act**” when referring to the EP Act 2017 as amended by the EP Amendment Act 2018.

⁹ For example, the Avonbank, Goschen and Wimmera Mineral Sands project are identified as being at the “EES Preparation and Review Stage” <https://www.planning.vic.gov.au/environment-assessment/browse-projects>

¹⁰ Pursuant to a s67A agreement between the Proponent and EPA dated 15 February 2021, a copy of which is at Document 225.

¹¹ New EP Act, ss 470 and 474.

¹² New EP Act, s474(3).

¹³ On 16 March 2021, the government proclaimed the remaining provisions of the EP Amendment Act 2018 would come into operation on 1 July 2021. Victoria, *Gazette: Special*, no S 124, 16 March 2021. See Document 230.

24. The IAC hearing is listed to run from 3 May 2021 until 29 June 2021. The legislation under which the EES has been prepared has been the EP Act 1970. That is the legislation that will apply at the time of the hearing. Yet it is the New EP Act that will apply by the time the IAC makes its findings and prepares its report.
25. The EPA will endeavor to assist the IAC with any queries relating to the transition to the new legislative framework and other matters within the expertise of the EPA. The EPA has also, through its submissions to the EES and its involvement in the TRG, encouraged the Proponent to engage with and respond to the new legislative framework. It continues to encourage the Proponent to do so, with the forthcoming hearing an excellent opportunity for the experts and submitters to respond to and engage with the new provisions.
26. The subordinate legislation that will support the New EP Act, as currently available from the EPA website¹⁴ includes:
- (a) the proposed final *Environmental Protection Regulations (New EP Regulations)* (Second Exposure Draft dated 14 December 2020);
 - (b) the proposed final *Environmental Protection Transitional Regulations* (Second Exposure Draft dated 14 December 2020);
 - (c) the proposed final Environment Reference Standard (**ERS**) (Second Exposure Draft dated 14 December 2020).
27. Although described as “proposed final”, these documents represent the endorsed position of the Government.¹⁵ Further substantive changes to the proposed subordinate legislation is not anticipated prior to 1 July 2021.
28. Additionally, five EPA publications will be incorporated in the Regulations when they are made and support their operation. The most relevant for present purposes is:
- (a) **Publication 1826.3** (March 2021): Noise limit and assessment protocol.¹⁶ This relates to the control of noise from commercial, industrial and trade premises and entertainment venues. The materials relating to industrial

¹⁴ <https://www.epa.vic.gov.au/about-epa/laws/new-laws/subordinate-legislation>

¹⁵ *Environment Protection regulations and standards: Response to public comment report*, DEWLP 2020, p1: <https://www.epa.vic.gov.au/-/media/epa/files/about-epa/laws/subordinate-legislation/response-to-public-comment-report.pdf>

¹⁶ <https://www.epa.vic.gov.au/about-epa/publications/1826-3>

noise outside of major urban areas will be of particular import. The Project is located outside a major urban area as defined under the protocol (the closest one being Bairnsdale).

29. Key guidance for understanding the new environmental laws in the context of mining activities is set out at **EPA Publication 1823** (October 2020): Mining and quarrying – Guide to preventing harm to people and the environment.¹⁷
30. It is important to note that the State Environment Protection Policies (**SEPPs**), which are part of the subordinate legislation for the EP Act 1970, will cease to have legislative effect with the repeal of that act on 1 July 2021, except where transitional provisions explicitly apply, none of which are directly relevant to the Project before the IAC.¹⁸
31. Many EPA guidelines will continue to exist and inform the GED, alongside more recent guidelines developed specifically with the New EP Act in mind.
32. Some content from the SEPPs have been adapted or rehoused, as shown in the figure below. The main instrument in which aspects of SEPPs have been redistributed are the ERS. Some aspects have been included in the New EP Regulations and other aspects were considered by the government to be “well covered” through the new EP Act (for example through the operation of the general environmental duty) or better framed as guidance.¹⁹

¹⁷ <https://www.epa.vic.gov.au/about-epa/publications/1823>

¹⁸ SEPP (Waters) cl 28(1)&(2), cl 29-30, 34(3)&(4), cl 35(1),(5)&(6), cl 37 and sch 4 will have effect until 21 July 2023 unless sooner revoked: *EP Transitional Regulations*, reg 7.

¹⁹ Refer to *Environment Protection regulations and standards: Response to public comment report*, DEWLP 2020, p6.

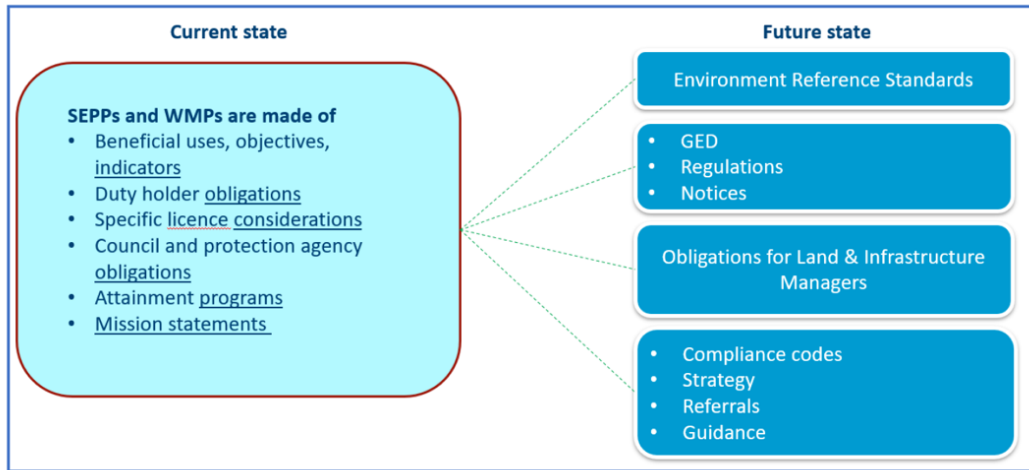


Figure 1: Change from SEPPs to new legislative framework

33. Whereas SEPPs used the concept of “beneficial uses”, this has been translated into “environment values” under the ERS. The environmental elements covered in the ERS are ambient air, ambient sound, land and water.

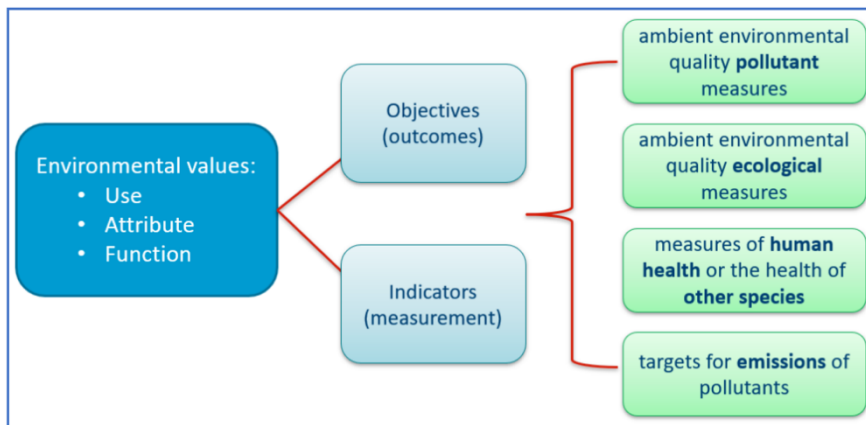


Figure 2: Content of Environmental Reference Standards

34. The ERS contains “objectives”, some of which provide quantitative measurements for their “indicators”. It is crucial to note the objectives are “reference” standards, not “compliance” standards. They are not levels that it is acceptable to “pollute up to”. If there are reasonably practicable ways to eliminate or minimise impacts below

the levels specified in the ERS or new regulations then the general environmental duty creates an enforceable requirement to do so.

Table 2.2: Indicators and objectives for the ambient air environment

Column 1 Indicators	Column 2 Objectives	Column 3 Averaging period	Column 4 Maximum exceedances
Carbon monoxide (maximum concentration)	9.0 ppm	8 hours	1 day a year
Nitrogen dioxide (maximum concentration)	0.12 ppm	1 hour	1 day a year
	0.03 ppm	1 year	none
Photochemical oxidants (as ozone) (maximum concentration)	0.10 ppm	1 hour	1 day a year
	0.08 ppm	4 hours	1 day a year
Sulfur dioxide (maximum concentration)	0.20 ppm	1 hour	1 day a year
	0.08 ppm	1 day	1 day a year
	0.02 ppm	1 year	none
Lead (maximum concentration)	0.50 µg/m ³	1 year	none
Particles as PM ₁₀ (maximum concentration)	50 µg/m ³	1 day	none
	20 µg/m ³	1 year	none
Particles as PM _{2.5} (maximum concentration)	25 µg/m ³	1 day	none
	8 µg/m ³	1 year	none

Extract from the ERS, Part 2 – Ambient Air

The General Environmental Duty

35. The New EP Act heralds a transformative shift, introducing a fundamentally different approach to environmental protection. It replaces a regime that has been consequence based. Under the current regime offences are predominantly directed towards pollution and waste impacts to the environment after they have occurred.



Figures 3 & 4: Transformative shift of the new regime



36. The new regime shifts its focus to an ongoing duty to prevent pollution and waste in the first place, with the cornerstone being the new environmental duty (GED) at s25. It requires a risk based approach in which harm to human health or the environment from pollution or waste is sought to be eliminated or, if that is not reasonably practicable, that it be reduced as far as reasonably practicable. Failure to comply with the GED is an indictable offence (proof beyond reasonable doubt – a higher evidential standard) and civil penalties (prove on the balance of probabilities – a lower evidential standard) are available for breach.
37. The duty contains a clear hierarchy: elimination is preferred over minimisation of risk. Reasonably practicable places a limit on what needs to be done, balancing risk and cost.



Figure 5: Shift in focus

38. Specifically, s25(1) states:

25 General environmental duty

- (1) *A person who is engaging in an activity that may give rise to risks of harm to human health or the environment from pollution or waste must minimise those risks, so far as reasonably practicable.*

39. It is through this lens that the proposed activities, technologies and mitigations strategies proposed by the Proponent ought to be considered given that the GED will apply by the time the IAC comes to write its report.
40. Section 6 of the New EP Act, defines what is meant by “minimising” risks of harm to human health and the environment “as far as reasonably practicable”. It provides:

6 The concept of minimising risks of harm to human health and the environment

- (1) *A duty imposed on a person under this Act to minimise, so far as reasonably practicable, risks of harm to human health and the environment requires the person—*
- (a) *to eliminate risks of harm to human health and the environment so far as reasonably practicable; and*
 - (b) *if it is not reasonably practicable to eliminate risks of harm to human health and the environment, to reduce those risks so far as reasonably practicable.*
- (2) *To determine what is (or was at a particular time) reasonably practicable in relation to the minimisation of risks of harm to human health and the environment, regard must be had to the following matters—*
- (a) *the likelihood of those risks eventuating;*
 - (b) *the degree of harm that would result if those risks eventuated;*
 - (c) *what the person concerned knows, or ought reasonably to know, about the harm or risks of harm and any ways of eliminating or reducing those risks;*
 - (d) *the availability and suitability of ways to eliminate or reduce those risks;*
 - (e) *the cost of eliminating or reducing those risks.*

41. Although not a defined term within the EP Act, the EPA uses the expression “state of knowledge” as a shorthand for considering the matters described at s 6(2)(c).

This expression appears in some of the recent guidance documents developed by the EPA to assist with the implementation of the new regulatory framework.²⁰

42. Industry knowledge, EPA guidance and the government materials inform the “state of knowledge” which changes over time as research develops and new technologies become available or more affordable, or new risks emerge. The ‘State of knowledge’ is all the information a person knows or ought to know about identifying and managing the risks and the steps that should be taken to eliminate or reduce those risks the risks.
43. The concept of “harm” is defined in the New EP Act at s4 as:

4 What is harm?

(1) *In this Act, **harm**, in relation to human health or the environment, means an adverse effect on human health or the environment (of whatever degree or duration) and includes—*

- (a) *an adverse effect on the amenity of a place or premises that unreasonably interferes with or is likely to unreasonably interfere with enjoyment of the place or premises; or*
- (b) *a change to the condition of the environment so as to make it offensive to the senses of human beings; or*
- (c) *anything prescribed to be harm for the purposes of this Act or the regulations.*

(2) *For the purposes of subsection (1), harm may arise as a result of the cumulative effect of harm arising from an activity combined with harm arising from other activities or factors.*

44. Whilst accepting that the IAC is not being asked to report upon whether the Project complies with the GED, clause 34 of the IAC Terms of Reference sets out matters to be included in the report. Relevant to the current discussion, clauses 34(b)-(d) direct the IAC report to contain:

²⁰ See for example <https://www.epa.vic.gov.au/about-epa/laws/new-laws/state-of-knowledge-and-industry-guidance>

- (b) *findings on whether acceptable environmental outcomes can be achieved, having regard to legislation, policy, best practice, and the principles and objectives of ecologically sustainable development;*
- (c) *recommendations and/or specific measures that it considers necessary and appropriate to prevent, mitigate or offset adverse environmental effects to acceptable environmental outcomes, having regard to legislation, policy, best practice, and the principles and objectives of ecologically sustainable development;*
- (d) *recommendations as to any feasible modifications to the project (e.g. extent, design, alternative configurations, or environmental management) that would enable more appropriate environmental outcomes;*

45. It can therefore be appreciated that the approach the IAC is to take fits with, and is complementary to, the assessment, elimination and managed control of environmental risks. The difference being the remit of the IAC is wider, with the EPA being focused directly upon risks and harm to the environment and human health from pollution and waste.
46. The New EP Act provides that compliance with a permission (such as a development licence) only discharges a duty under the act (such as the GED) to the extent that a condition of the licence specifically provides for how the person is to perform the duty or satisfy the obligation and the person complies with the permission.
47. This means that compliance with licence conditions may not fully discharge all duties under the New EP Act. Permission in this context refers to a development, operating or pilot project licence, permit or registration under the New EP Act.²¹ Permission does not include approvals under the MRSD Act, such as a mine work plan.
48. With respect to the GED, the specific obligations at s25(4) should also be born in mind. These address specific actions a business must do ensure the risk of harm is minimised. This includes:
- (a) using and maintaining plant, equipment, processes and systems properly;

²¹ Definition at s3(1) of the New EP Act.

- (b) using and maintaining risk management systems and evaluating the effectiveness of controls;
 - (c) using and maintaining systems to ensure that if a risk of harm eventuates, harmful effects will be reduced;
 - (d) handling, storing and transporting substances appropriately;
 - (e) providing information, instructions, supervision and training to enable people to comply with the GED.
49. Section 25(5) imposes requirements upon a person who designs, manufactures, installs or supplies substances, plant, equipment or structures, making them explicitly subject to the GED and the requirements specified in that subsection.
50. Finally, in addition to the GED, positive duties imposed by the New EP Act include:
- (a) the duty to notify of certain pollution incidents: s32;
 - (b) the duty to respond to harm (restore the environment) after a pollution incident: s31;
 - (c) the duty to manage contaminated land (including groundwater): s39;²²
 - (d) the duty to notify of certain contamination to land (including groundwater): s40;
 - (e) duties relating to industrial, priority and reportable priority waste: ss133-143.
51. In some circumstances, it is necessary to obtain permission for an activity by way of a development licence (s44), operating licence (s45) permit (s46) or registration (s47).
52. As identified above, the Project triggers a requirement for a development licence in relation to the discharge of surface water and groundwater.²³ Those matters will be subject to detailed further assessment by the EPA as the relevant decision maker. By contrast, the EPA will play a consultation role or, if its recommendation is not accepted, a “to the satisfaction” role (ie an approval role), in relation to other forms

²² The definition of land at s3(1) includes groundwater.

²³ Refer to the proposed New EP Regulations at regulations 16 and item 37 of Schedule 1.

of pollution and waste arising from the mining activities, including GHG, dust and noise.

The EPA's key issues for the forthcoming IAC hearing

53. EPA's submissions 514 (October 2020) and 514(b)(March 2020) to the EES sets out its position in relation to the Project. Whilst some of the recommendations made by EPA have been the subject of expert recommendations that the proponent has indicated it will accept, there remain a number of outstanding issues.
54. In terms of matters within the remit of the EPA, the key issues are:
 - (a) impacts to groundwater and surface water – the EPA considers further information, modelling and monitoring is required in order to fully assess the risks of harm in relation to groundwater and surface water discharges – noting the EPA has requested further information in its s22 Notice through the development licence process; and
 - (b) the new environmental protection regulatory framework – the EPA is seeking greater engagement with, and consideration of the new regulatory framework. This includes ensuring future documents include the correct references, but more importantly in ensuring that the further detailed design of the project considers and responds to the GED given the importance of design, plant and operational procedures in achieving the elimination and minimisation of risks to human health and the environment arising from waste and pollution to the extent reasonably practicable.
55. In addition to those matters, the following matters have yet to be adequately resolved or addressed:
 - (a) noise:
 - (b) air, whilst many of the recommendations sought by the EPA are consistent with the recommendations in Mr Welchman's evidence, the EPA pursues those which have yet to be adopted;
 - (c) ensuring there is sufficient information to properly consider the effects arising from the centrifuges (including effects relating to noise and greenhouse gas emission)

56. The EPA will have its personnel in attendance throughout the hearing. It will also closely follow the proceedings in relation to all aspects relevant to its regulatory functions, including the submissions on the WAA (to be the development licence), impacts on human health, radiation and the environmental and human health impacts from pollution and waste as a result of other changes to the Project, such as traffic and ecology.

SERENA ARMSTRONG

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Instructed by Environment Protection Authority of Victoria

29 April 2021