IN PLANNING PANELS VICTORIA
INDEPENDENT ADVISORY COMMITTEE (IAC)
NORTH EAST LINK PROJECT (PROJECT)

BETWEEN

NORTH EAST LINK AUTHORITY

and

ENVIRONMENT PROTECTION AUTHORITY VICTORIA

and

OTHERS

SUBMISSIONS ON BEHALF OF THE ENVIRONMENT PROTECTION AUTHORITY VICTORIA

INTRODUCTION

1. These submissions are made on behalf of the Environment Protection Authority of Victoria (EPA). EPA is an independent statutory authority. Its objective is to protect human health and the environment by reducing the harmful effects of pollution and waste.

2. In relation to the Environment Effects Statement (EES) for the Project and proposed Planning Scheme Amendment GC98 (Amendment), EPA appears before the IAC as a submitter. In relation to the application for a works approval (WAA) for the tunnel ventilation system that forms part of the Project, EPA appears in order to provide advice on the status of the assessment of the WAA and key issues that EPA is continuing to consider.

3. These submissions cover the following matters:

   (a) imminent changes to the primary environmental legislation applicable to the Project – what those changes are, what they mean for the Project, and how the Incorporated Document\(^1\) and Environmental Management Framework (EMF) for the Project should be modified in response to those changes;

   (b) an overview of the status of the WAA;

   (c) matters raised in EPA’s submission on the EES (#600) that have been resolved or are not being pursued further but require some further explanation or comment;

   (d) issues in relation to the further revised air quality EPRs issued on 6 August 2019 (document 157);

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\(^1\) The Incorporated Document for the Project, as proposed to be incorporated into relevant planning schemes by the Amendment.
(e) matters raised in EPA’s submission to the EES that have not been resolved. All of the recommendations in EPA’s submission related to the proposed Environmental Performance Requirements (EPRs) for the Project. Based on revision 1 of the EPRs dated 31 July 2019 and subsequent updates, about two thirds of EPA’s recommendations were accepted. These submissions deal only with remaining issues, some of which are minor;

(f) appropriate arrangements for ongoing consultation with EPA; and

(g) confirmation of EPA’s position in relation to the Amendment.

ENVIRONMENT PROTECTION ACT 2017

4. The EES assesses the Project applying the Environment Protection Act 1970 (EP Act 1970). EPA agrees that this is appropriate. The EP Act 1970 will however be repealed at about the same time that construction on the Project is expected to commence. The construction and operation of the Project will therefore take place in a different regulatory context to that which applies today. EPA submits that this context should be acknowledged in the Incorporated Document and the EMF, as key regulatory documents for the Project, and that provision should be made for updating the EMF to reflect the imminent changes to the environmental regulatory regime for the Project.

5. EPA, and the legislation it administers, is currently undergoing a transformation:

(a) The EP Act 1970 is in force and contains all currently operational substantive provisions (e.g. offences, requirements for approvals) and some currently operational procedural provisions (e.g. powers and functions).

(b) The Environment Protection Act 2017 (2017 Act) is in force and contains currently operational procedural and administrative provisions. For example, the 2017 Act establishes EPA and sets out its objective.

(c) The Environment Protection (Amendment) Act 2018 (2018 Act) received assent on 28 August 2018 but most provisions will commence on the earlier of a day to be declared or 1 December 2020. The Victorian Government’s intention is that the Act will commence on 1 July 2020. The 2018 Act introduces substantive provisions into the 2017 Act and repeals the EP Act 1970. Many aspects of the 2018 Act require regulations to activate the substantive provisions (e.g. permissions, parts of the waste scheme and noise provisions).

6. The 2017 Act as it will be amended by the 2018 Act (New EP Act) takes a fundamentally different approach to environmental regulation from the approach taken by the EP Act 1970. The focus moves from protecting of the environment per se, to preventing pollution and
waste. At the highest level, prescriptive offences (e.g. the offence of pollution of waters: EP Act 1970, s 39) will be replaced by duties, most prominently the general environmental duty.

7. The general environmental duty applies to any 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, and requires such a person to minimise those risks, so far as reasonably practicable (New EP Act, s 25(1)). “Reasonably practicable” places a limit on what needs to be done, balancing risk and cost. A failure to comply with the general environmental duty is an indictable offence (proof beyond reasonable doubt – a higher standard), and civil penalties (proof on the balance of probabilities – a lower standard) are also available for breach.

8. In addition to the general environmental duty, the New EP Act will require a person in management or control of contaminated land to minimise any risks of harm to human health or the environment that arise from the presence of contamination on or in that land (s 39). There is also a duty to report certain contamination (s 40). Pollution incidents must be managed if there is a potential to cause harm (s 31), and notifiable pollution incidents must be reported to the EPA (s 32). These duties will apply to those constructing and operating the Project in addition to the EPRs, any works approval or licence, and any other approvals.

9. Other implications for the Project of the legislative transformation include:

(a) Works approvals will be replaced by development licences. Although the regulations prescribing the activities requiring a development licence have not yet been made, EPA expects that a tunnel ventilation system will require a development licence under the New EP Act.

(b) Current licences will be replaced by a suite of permissions including operating licences. Although the regulations prescribing the activities requiring an operational licence have not yet been made, EPA expects that tunnel ventilation systems will require an operating licence under the New EP Act.

(c) Statutory instruments such as State Environment Protection Policies (SEPPs) and Waste Management Policies (WMPs) will not be retained, with some possible exceptions which have not yet been confirmed (s 502(4) New EP Act). Aspects of the SEPPs that describe “beneficial uses” will be translated into “environmental values” under a legislative instrument called the Environment Reference Standard. Other components of the SEPPs and WMPs will be translated into regulations or will otherwise be absorbed in substance by the operation of the general environmental duty.

It is anticipated that the Government will release the proposed regulations, the draft Environment Reference Standard and regulatory impact statements for public
comment in September, although this is only an indicative timeframe. There is anticipated to be one set of regulations and one standard.

**Figure 1: redistribution of SEPPs**

**Figure 2: Environment Reference Standards**

(d) Many EPA guidelines will continue to exist and inform the general environmental duty. Additionally, guidelines may be published by EPA to set out one or more means of compliance with the general environmental duty. EPA is not yet in a position to specify what aspects of the general environmental duty will be the subject of supporting guidance.

(e) There will be third party rights that have no equivalent under the EP Act 1970.

10. The implications of the New EP Act for the WAA are clear, and are outlined below in considering the WAA. The implications of the New EP Act for the Project more generally are
more complex, but the Incorporated Document and the EMF for the Project present an opportunity to facilitate a smooth transition for the Project into the new regime.

**The New EP Act and the Project**

11. Those involved in constructing and operating the Project, if it is approved, will be subject to:

(a) the Incorporated Document and the approved EMF (and other approved plans and strategies);

(b) the works approval and any replacement development licence (for construction), and an operating licence (during operation);

(c) any other applicable statutory approvals (eg Water Act 1989, Aboriginal Heritage Act 2006); and

(d) the general environmental duty and other duties in the New EP Act.

12. That is, the duties under the New EP Act will apply in addition to other regulatory requirements.

13. Compliance by the Project with the EMF, including the EPRs, will be necessary but alone not sufficient to discharge the general environmental duty. In particular:

(a) the approval by the Minister for Planning of the EMF does not mean that the general environmental duty is discharged; and

(b) persons constructing and operating the Project will need to actively consider new instruments prepared under the New EP Act, as well as developments in the state of knowledge relevant to determining what is reasonably practicable to minimise risk to the environment and human health from pollution or waste.

14. The general environmental duty will require a proactive approach to risk identification and minimisation on an ongoing basis. EPA’s view in relation to compliance by the Project with the general environmental duty is that:

(a) for a high-risk project, satisfaction of the general environmental duty will require a level of diligence that is proportionate to those potential impacts; and

(b) there is real potential for the Project to have to perform beyond the current requirements of the EMF over its lifetime in order to satisfy the duty (although EMF requirements for best practice already incorporate the idea of “to the extent reasonably practicable”).
15. EPA notes that the EMF acknowledges that the EPRs are “minimum environmental outcomes that must be achieved” that are “intended to minimise impacts and the risk of harm to human health and the environment to within reasonable limits having regard to contextual factors and the practical delivery of the project” (EES, chapter 27 – Environmental Management Framework, page 27-23).

16. EPA accepts that the EPRs are minimum standards, and that a test of reasonableness is appropriate, but submits that the overall test for the Project will be compliance with the general environmental duty.

**Changes sought to Project documents**

17. There is currently negligible reference in the EES to the New EP Act, and no reference in the EMF or the Incorporated Document.

18. The proponent’s Part A submission accepts the need to update the EMF to respond to the new legislative regime and the instruments issued pursuant to it (document 34a, [201]-[202]). The proponent also states (at [202]):

   *As the form and content of those instruments are not yet known, however, it is not possible to pre-empt their content as part of this assessment process.*

19. EPA agrees with this statement but considers that the Incorporated Document and the EMF can and should deal with the New EP Act.

20. EPA requests acknowledgment of the New EP Act and a process for updating the EPRs to reflect the New EP Act as follows:

   (a) Insert new section 4.5.5 (and renumber subsequently) into the Incorporated Document as follows:

   *The EMF must be amended to update references and requirements following commencement of the Environment Protection (Amendment) Act 2018, to the satisfaction of the Minister for Planning. The amendment must be conducted in consultation with the Environment Protection Authority and a draft amended EMF must be submitted to the Minister for approval within 12 months of the commencement of the Environment Protection (Amendment) Act 2018.*

   (b) Insert new text into the EMF in section ‘statutory approvals and consents’ (currently section 27.3) as follows:

   *In addition to specific approval requirements, the Environment Protection (Amendment) Act 2018 will commence by 1 December 2020 and will amend the Environment Protection Act 2017. The amended Environment Protection Act 2017 will impose new duties, including in relation to the minimisation of environmental risks (the general environmental duty), contaminated land and pollution incidents. The amended Act will apply to those involved in the Project in addition to any specific approvals.*
(c) Insert new text into the EMF section ‘environmental management documents’ (currently section 27.5.2) as follows:

In order to ensure it remains current, the EMF will need to be updated after commencement of the Environment Protection (Amendment) Act 2018. The Incorporated Document requires an updated EMF to be prepared in consultation with EPA and submitted to the Minister for Planning within 12 months of the commencement of the amendment Act.

(d) Insert new text into the EMF section ‘environmental performance requirements’ (or include in any standalone EPR document) (currently section 27.7):

Those involved in constructing and operating North East Link would be subject to the Environment Protection Act 2017 (as amended by the Environment Protection (Amendment) Act 2018), including the general environmental duty. Compliance with the EPRs is likely to be necessary in order to discharge the general environmental duty, but may not be sufficient.

21. EPA will not necessarily request this level of reference to the New EP Act in equivalent documents for future projects. The Project however sits in a transitional stage – approved under the old regime but constructed and operated under the new regime. There are only a small number of projects in similar circumstances. EPA is dealing with these on a case-by-case basis. Given the size, duration and potential environmental impacts of the Project, EPA submits that the commencement and implications of the new regime should be explicitly identified in approval documents, and there should be a clear process for transition to the new regime.

22. Transparency and accuracy are other important reasons to explicitly deal with the New EP Act in the EMF and Incorporated Document. The EMF is the key environmental control for the Project. If the EMF does not refer to the New EP Act, the environmental regulatory regime applicable to the Project will not be accurately communicated by the key environmental control for the Project. This is not a desirable outcome. It is also not consistent with the principle – applicable to EPA specifically but relevant more generally – that “members of the public should…have access to reliable and relevant information in appropriate forms to facilitate a good understanding of issues of harm or risks of harm to human health and the environment and of how decisions are made under this Act” (New EP Act, s 22; EP Act 1970, s 1L).

23. Future projects will explicitly deal with the New EP Act from the outset and integrate consideration into the EMF and EPRs, as well as the EES and technical reports.

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2 These transitional issues only arise with projects for which there is an EES in relation to an approval in addition to a works approval, such as a planning scheme amendment or a planning permit, and the project will (or is likely to) be approved prior to commencement of the 2018 Act. Where there is only a works approval, the New EP Act provides clear transitional provisions, as discussed in relation to the WAA.
24. EPA has commenced discussions with the proponent about the amendments proposed above and hopes to reach an agreed position. EPA requests the opportunity to update the IAC on this matter prior to the end of the hearing.

WORKS APPROVAL


26. The Project includes a ‘tunnel ventilation system’ comprising:

(a) Northern ventilation stack located at Blamey Road with two discharge outlets: 40 m² and 20 m² respectively, at 40 m high above the ground level.

(b) Southern ventilation stack located at Bulleen Road with two discharge outlets: 33 m² and 17 m² at 40 m high above the ground level.

(c) An emergency smoke discharge structure at Manningham Road Interchange with four outlets: 20.25 m², each at 10 m height.

(d) Installations at those structures would also include:

(i) VSD fans

(ii) air quality monitors

(iii) noise attenuators

(iv) dampers

(v) substations.

(e) Other installations, including flood walls around the ventilation structures and in-tunnel jet fans.

27. An application for a works approval for the proposed tunnel ventilation system has been made (the WAA).

28. The effect of an EES being required for the Project, which includes the tunnel ventilation system, is that EPA cannot make a decision on the WAA until the Minister for Planning has

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3 Figure 2-2 of the WAA
made his assessment of the Project and issued his assessment report, and EPA has considered that assessment.

29. The WAA was jointly advertised with the EES. The effects of this are:

(a) the EPA cannot convene a conference under section 20B of the EP Act 1970 to consider any submissions with respect to the WAA (s 20B(3B)(b)); the IAC hearings are effectively *in lieu* of such a conference, EPA is considering evidence and submissions to the IAC, and EPA will consider the IAC’s report;

(b) any comments by any person in relation to the WAA must be made by submission on the EES (s 20B(3B)(a)), and EPA is considering those submissions;

(c) third parties have no right to appeal to the Victorian Civil and Administrative Tribunal in relation to EPA’s decision on the WAA provided that the decision is substantially in accordance with the assessment of the EES by the Minister (s 33B(1A)). Conversely, if EPA’s decision is not substantially in accordance with the Minister’s assessment, third party appeal rights remain. The proponent’s appeal rights in relation to EPA’s decision are not affected – under the EP Act 1970 – by whether EPA’s decision is or is not in accordance with the Minister’s assessment.

30. The WAA process will therefore continue after the IAC has concluded its work. The IAC’s terms of reference reflect that EPA makes its own decision following independent consideration of the WAA. In relation to the WAA, the IAC’s terms of reference are to “provide advice to the Environment Protection Authority that can be used to inform its consideration of the WAA” (para 1(d)).

31. The key wastes which the EPA will assess as part of the WAA assessment process are:

(a) air emissions (both in tunnel air emissions and discharges from ventilation systems);

(b) greenhouse gas emissions; and

(c) noise emissions.

32. EPA also considers public health.

33. The EPA will be evaluating the tunnel ventilation system for compliance with relevant Victorian State Environment Protection Policies, regulations and guidelines. Given the EPA has not yet fully assessed the WAA, the position expressed in this submission represents EPA’s minimum expectation of what would be required if a works approval were to be issued. EPA’s detailed assessment may identify further matters that require consideration, or a need for further information. EPA has the power to issue notices requiring further information under
section 22 of the EP Act 1970. Any notices will be uploaded to EPA’s website for the WAA for North East Link.\(^4\) One notice has been issued, discussed below.

34. EPA’s submission on the EES set out the matters it is considering in assessing the WAA. Since making its submission on the EES, EPA has further evaluated the WAA, submissions on the WAA (made as submissions on the EES), and submissions and evidence to the IAC. On 6 August 2019, EPA issued a ‘section 22’ notice (included at Attachment 1) requiring further information about:

(a) ventilation stack heights;
(b) how the ventilation system was designed, including information in relation to different traffic scenarios (speeds, congestion levels, fire incident) and ‘worst-case situation’ analysis (ie the ability to meet the in-tunnel air quality criteria in different scenarios);
(c) smoke control;
(d) design of the emergency ventilation stacks;
(e) protection of health of tunnel users in abnormal operating conditions;
(f) provision of modelling files and confirmation of assumptions; and
(g) information about the legal entity to hold any works approval that is issued.

35. The due date for responding to the section 22 notice is 5 September 2019, unless otherwise agreed. EPA may issue further notices.

**Effect of the New EP Act**

36. Any works approval issued for the tunnel ventilation system prior to commencement of the 2018 Act would be assessed and issued under the EP Act 1970. Such a works approval would automatically become a development licence under the New EP Act (s 471). EPA would then have the power to, within 12 months of the commencement day, amend the licence to ensure that it is consistent with the kinds of conditions that may be imposed under the New EP Act (s 472). The licence may also be amended on the initiative of EPA subsequently (ss 58(1)(c) and 69).

37. In addition, from the commencement of the New EP Act, the general environmental duty would apply to the holder of any development licence (including one that arises from a works approval) and would require ongoing evaluation of options to minimise risks of harm to the environment or human health from pollution or waste. The New EP Act provides that

compliance with a licence only discharges the general environmental duty to the extent that a condition of the licence specifically provides for performing the duty (New EP Act, s 62). This means that compliance with licence conditions may not fully discharge the duty.

38. If no works approval is issued for the tunnel ventilation system prior to commencement of the 2018 Act, any development licence that is required would be assessed and issued under the New EP Act (New EP Act, s 474). It would not matter that the WAA was made prior to the commencement of the 2018 Act.

39. EPA is not aware of any reason that it would not make a decision on the WAA for the tunnel ventilation system prior to commencement of the 2018 Act, but there are matters affecting timing that are beyond EPA’s control.

ISSUES WITH THE EES

40. The overarching objective of EPA’s involvement in the EES is to ensure that:

   (a) the environmental issues identified by the Minister, relevant to EPA’s legislative framework, have been properly considered by the EES documents; and

   (b) the potential environmental effects of these issues will be avoided and minimised to the extent possible throughout the construction and operational phases of the Project.

41. EPA’s submission on the EES and these submissions to the IAC are ‘exceptions based’. If no comment is made in relation to an issue or an EPR, EPA is satisfied in relation to that matter. That is, EPA considers that the EPR is appropriate to assess and manage environmental risks into the future. This is not to say that EPA does not consider that a significant amount of additional work is required before construction to commence; the objective is to ensure that the EPRs provide an appropriate framework for that work.

42. All of EPA’s recommendations relate to EPRs. EPA’s view is that the EPRs should provide clarity to all of those involved – the proponent, the companies that bid for the contract to build the Project, the successful tenderer, the contractors involved in construction and the community – about who has to do what, when and why. EPA has limited involvement in the Project once it’s approved (a topic to which these submissions return) but in any case, it is better to have clarity upfront. EPA’s experience over many years with the implementation of these Projects is that sometimes “understandings” are forgotten with the introduction of new stakeholders and the passage of time. It is better to get it right in the first place.

43. The table in Attachment 2 is an extract from the latest EPRs (revisions 1 to 3 as appropriate) with an additional column setting out EPA’s relevant recommendation. The table only includes recommendations on which comment is made in these submissions. If EPA’s
recommendations on an EPR have been accepted (in revision 1 of the EPRs) and EPA does not have anything further to say about it, that EPR is not included.

AIR QUALITY

44. EPA’s primary concern with the EPRs is in relation to air quality.

45. EPA made recommendations in its submission to the EES in relation to amendment of EPRs AQ1, AQ2 and AQ4. Several of those changes have been accepted; some have not. These submissions address the latest EPRs (revision 3, 6 August 2019), which include substantial changes. AQ1 is concerned with air quality management in relation to construction impacts. AQ4 is concerned with long-term ambient air quality monitoring. In relation to AQ2, EPA requests a requirement for provision for retrofitting of pollution of equipment.

46. Amendments to AQ5 were made in Revision 3 of the EPRs (6 August 2019, document 157). EPA does not agree with some of the changes.

AQ1 - Implement a Dust and Air Quality Management and Monitoring Plan to minimise air quality impacts during construction (resolved)

47. EPA recommended insertion of reference to “relevant international guidelines” into AQ1. This recommendation has not been adopted, but EPA does not push for this inclusion on the basis that reference to “best practice” has been included in AQ1 as recommended. EPA emphasises that:

(a) mere compliance with EPA Publication 480 – which is now well over 20 years old – will not discharge a best practice duty (or the general environmental duty);

(b) regardless of whether AQ1 refers to international guidelines, best practice (and the general environmental duty) will in fact be informed by international guidelines such as the UK’s "Guidance on the Assessment of Dust from Demolition and Construction" (Institute of Air Quality Management 2014)\(^5\) (referred to in Technical Report B, section 4.4, as a guidance document);

(c) monitoring (on a 1- or 3-hourly basis, not a 24-hourly basis) is a necessary aspect of the AQ1 plan, but the first priority is prevention – ensuring that the Project will manage and control emissions. Further, reactive management is critical – there is no point identifying issues with monitoring unless it is clear what response is required, and that response occurs;

best practice in the context of the Project will be strongly influenced by the measures and controls being used for other current major infrastructure projects in Victoria. These are all examples of current practices that EPA considers ‘best practice’:

(i) using hourly and three hourly reactive particle level triggers rather than the 24-hour triggers that are actioned by site environmental supervisor;

(ii) track out control mats on unsealed areas to reduce sediment being transported onto roads;

(iii) earth extraction process involving moisture, resulting in slurry material which is less prone to becoming airborne;

(iv) transporting extracted material using covered conveyor belts;

(v) covered storage for spill material requiring further mixing for testing and sorting; and

(vi) using truck contractors that use trucks with low emission EURO5/6 emission controls.

Those carrying out the Project will need to learn from others; and

(e) best practice requires continuous evaluation of options for improvement and adoption where practicable.

48. EPA suggests one minor change to the Revision 3 AQ1: replacement of reference to “trigger levels” with “triggers”. The rationale for this change is that “trigger levels” necessarily involve monitoring, whereas “triggers” may not be monitoring-related. For example, observation of airborne dust may be a trigger.

AQ4 – Monitor ambient air quality (unresolved)

49. EPA requests three changes in relation to EPR AQ4:

(a) specification of the standards for assessment of ambient air quality data – environmental quality objectives (EQOs) under the State Environment Protection Policy (Ambient Air Quality) (SEPP(AAQ));

(b) the specification of ambient air quality monitoring station (AAQMS) locations, including a new location near Yallambie Road; and

(c) a requirement for daily provision of monitoring results;
Standards for ambient air quality monitoring

50. The use of the SEPP(AAQ) EQOs has been a contentious issue in the past in Victoria and has been contentious during the development of the EES. EPA has advised the proponent consistently formally and informally that air monitoring data should be compared to the SEPP(AAQ) EQOs. Earlier projects including West Gate Tunnel have used the less stringent levels of State Environment Protection Policy (Air Quality Management) (SEPP(AQM)) – Intervention Levels – although the most recently considered transport project subject to an EES – the Mordialloc Bypass – adopts the more stringent SEPP(AAQ) EQOs (in the EPRs in the EES and before the IAC; the project has not yet been approved).

51. The proponent’s view in relation to the use of EQOs for ambient air quality monitoring for the Project is unclear. Regardless of the proponent’s position, these submissions address the issue of ambient air quality monitoring standards in some detail as it is consistently contentious and EPA has experienced disputes with proponents over multiple projects in relation to the appropriate standards to use for monitoring (and appropriate targets for design). EPA requests that the IAC include explicit findings on this matter for the benefit of future projects. EPA hopes that this issue will not arise under the framework of the New EP Act, but still considers it worth resolving the issue now.

52. To be clear, the issue here is long-term monitoring to measure the impacts of the Project – what was the air quality like before the Project, what is it like after the Project commences operation? This is partly a comparative exercise (before and after), but there is also an element of comparing measured levels to a standard. A more stringent standard may mean a lower level of compliance.

53. It is useful to consider EPA’s position in relation to monitoring standards in the context of West Gate Tunnel, a comparable major project that is currently under construction. If you review an air quality monitoring report for any given month, you will find a map of monitoring locations, and tables showing applicable standards and monitoring data. Extracts from the May monitoring report are set out below.

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Locations:

Figure 1: West Gate Tunnel AAQMS site locations

Criteria:

Table 5: Air quality indicators and objectives

<table>
<thead>
<tr>
<th>Location</th>
<th>Pollutant</th>
<th>Units</th>
<th>Air Quality Objective</th>
<th>Averaging period</th>
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<td>24 hour</td>
</tr>
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<td>PM(_{2.5})</td>
<td>(\mu g/m^3)</td>
<td>8</td>
<td>Annual</td>
</tr>
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<td>24 hour</td>
</tr>
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<td>24 hour</td>
</tr>
<tr>
<td>Station 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Station 5</td>
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<td></td>
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</tr>
<tr>
<td>Station 6</td>
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Results:

Table 18: Station 1 Summary – May 2019

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<th>Maximum concentration</th>
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<th>Exceedances</th>
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Table 19: Station 2, Station 3, Station 5 and Station 6 Summary – May 2019

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<th>Averaging period</th>
<th>Maximum concentration</th>
<th>Air quality objective</th>
<th>Exceedances</th>
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</thead>
<tbody>
<tr>
<td>PM(_{2.5})</td>
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<td>36</td>
<td>Nil</td>
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<tr>
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<td>46 43 45 59</td>
<td>60</td>
<td>Nil</td>
</tr>
</tbody>
</table>
There are different criteria for different locations. Location 1 has lower standards – SEPP(AAQ) EQOs – than the other five locations, which have SEPP(AQM) Intervention Levels. The reason for this is that location 1 – the middle of Yarraville Gardens – is the only location that is more than 50 metres from a road. All of the other locations are within 50 metres of a road.

There is no law or guideline that prescribes different impact monitoring standards for areas within or beyond 50 metres of a road. The SEPP(AQM) requires the development of a Protocol for Environmental Management (PEM) for road construction and operation, but the PEM has never been developed. Nothing fills the hole left by the lack of a PEM.

Rather, there is a convention of applying SEPP(AQM) Intervention Levels to data from monitoring locations within 50 metres of a road. But there is no reason to not use the EQOs for ambient air quality monitoring.

The issue then is determining the appropriate standard – EQOs or Intervention Levels? The EQOs are prescribed for the protection of a beneficial use. They are science-based. On the other hand, the SEPP(AQM) schedule B standards are “intervention levels” arbitrarily set to 20% or more above the SEPP(AAQ) levels. They are defined as “a numerical value for an indicator which if exceeded may trigger development of a neighbourhood environment improvement plan”. They are not science-based. EPA’s position is that the use of SEPP(AQM) Intervention Levels in monitoring the impacts of the Project is not required or justified, and that the use of SEPP(AAQ) EQOs is appropriate and constitutes best practice.

EPA acknowledges that the Intervention Levels have been used in the past for monitoring. That does not however mean that those levels should continue to be used. One of EPA’s key new regulatory functions is protecting human health from past, present and potential future waste and pollution. As part of this function, EPA has responsibility for understanding and advising on the human health risks associated with exposure to air pollution.

It does not seem to be in dispute that air pollution and traffic emissions have adverse health effects. Certainly there is well established evidence that air pollution, even at concentrations below current air quality standards, is associated with adverse health effects, and that traffic-related air pollution is an important component of air pollution in a city like Melbourne. EPA Publication 1709, ‘Air pollution in Victoria – a summary of the state of knowledge’, August 2018 summarises current knowledge about air quality, sources, trends and impacts in Victoria. Given the importance of air quality, it is important that the standards used for assessing compliance are science-based – the EQOs.

60. There is also an environmental justice issue arising from the convention of using the Intervention Levels for monitoring close to roads and EQOs for more distant monitoring is that there are different standards applied at different locations. The fact that areas close to roads may suffer from a lower air quality is an injustice that is difficult to address. The application of less stringent standards to those areas adds to the injustice but is readily remedied.

61. EPA itself currently uses the SEPP(AAQ) EQOs to assess air quality measurements undertaken near roads. For examples, the EQOs were used for the Francis Street, Yarraville roadside air monitoring program in 2012-2013. EPA itself currently uses the SEPP(AAQ) EQOs to assess air quality measurements undertaken near roads. For examples, the EQOs were used for the Francis Street, Yarraville roadside air monitoring program in 2012-2013. EPA itself currently uses the SEPP(AAQ) EQOs to assess air quality measurements undertaken near roads. For examples, the EQOs were used for the Francis Street, Yarraville roadside air monitoring program in 2012-2013.

62. The use of the SEPP(AAQ) EQOs approach is also consistent with other major road developments in other major cities in Australia which use the national ambient air quality objective as the operational and design air quality impact assessment guideline. For example, in NSW, Lane Cove Tunnel, Cross City Tunnel, NorthConnex, M5 East/WestConnex and the M4 East use NEPM AAQ standards, as does Legacy Way in Brisbane.

63. EPA submits that best practice requires that the roadside air monitoring programs for the Project assess against the SEPP(AAQ) EQOs, rather than the SEPP(AQM) Intervention Levels, and that this requirement should be explicit in AQ4.

Location of monitoring stations

64. In relation to AQ4, EPA recommended specification of an additional location for monitoring, and a requirement for daily provision of data to the public. In light of additional information from the proponent, it now seeks that all monitoring locations be specified.

65. The critical issue with the location of AAQMS is that they are located where impacts are most likely to occur when the Project is operational.

66. In preparing its submission, EPA assumed that the existing five AAQMS, as agreed with EPA and used for background monitoring, would be used for ongoing ambient air quality monitoring. However, EPA understands from Mr Fleer’s expert witness statement that this may not be the case. EPA considers that the current locations are appropriate, for the following reasons:

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8 https://www.epa.vic.gov.au/~media/Publications/1546%201.pdf
9 Lane Cove conditions of approval, November 2002, condition 169
10 Cross City Tunnel conditions of approval, October 2001, condition 92
11 NorthConnex conditions of approval, January 2015, condition E8
12 M5 East/WestConnex conditions of approval, April 2016, condition E14
13 M4 East conditions of approval, February 2016, condition E9
14 Legacy Way conditions of approval, April 2010, condition A13
(a) Site A, Belle Vue School, Balwyn North, is located at a school, which is a sensitive receptor. It is predicted to experience increased traffic due to connection of North East Link and expanded Eastern Freeway.

(b) Site B, Middleborough Road, Box Hill, is predicted to experience increased traffic along Eastern Freeway expansion.

(c) Site C, Lower Plenty Road, Viewbank, is located near a school, which is a sensitive receptor, and is predicted to experience road impacts and impacts from ventilation system.

(d) Site D, Grimshaw Street, Greensborough, is predicted to experience increased traffic impacts from the M80 connection to North East Link.

(e) Site E, Trinity College, Manningham, is a school, which is a sensitive receptor and is predicted to experience impacts from the southern stack of the ventilation system.
Proposed Site F is located near a new childcare (a sensitive receptor) approximately 100 metres north of Yallambie Road (corner Greensborough Road and Torbay Street) near the northern tunnel portal. The area for the proposed site is shown on the figure below, and very approximately on the plan above.

The modelling shows this area as having the highest surface road impacts and impacts from the ventilation system. EES Technical Report B states (p 217):

...Maximum concentrations of all pollutants for the project case are predicted to occur for the project case on the eastern side of Greensborough Road between Yallambie Road and Watsonia Road intersection, approximately 50 to 100 metres north of Yallambie Road.

EPA considers that the current Grimshaw Street station (Site D) – at around 2 kilometres to the north – is too far away from this area where highest impacts are predicted to occur. EPA notes that the proponent now proposes an additional AAQMS at Simpson Barracks. There has been no discussion of this with EPA, and EPA considers that its proposed additional AAQMS north of Yallambie Road would be preferable to, and should replace, the proposed Simpson Barracks AAQMS. Simpson Barracks is south of the area of maximum predicted...
impacts. Mr Fleer did not know why an additional AAQMS was proposed at Simpson Barracks, agreed that it was not an area of predicted highest impacts and agreed that a location immediately north of Yallambie Road would be a suitable location for an additional AAQMS.

70. The equivalent EPR for West Gate Tunnel identifies (six) specific locations for AAQMS, and the specification of AAQMS locations is standard practice across Australia for major road projects, with 4 to 6 locations generally specified. 15

71. EPA submits that it would be preferable for EPR AQ4 to specify the location of six AAQMS, being the five current AAQMS and the EPA-proposed Yallambie Road area station (instead of the proponent’s proposed Simpsons Barrack station). At a minimum, the EPR should specify that an AAQMS be located in the area of maximum predicted impacts, and that AAQMS should be located having regard to predicted impacts.

Public availability of data

72. Access to data is fundamental to the community’s ability to access information to understand environmental issues, as required by the principle of accountability. The principle of accountability is one of the principles of environment protection in both the EP Act 1970 (s 1L) and the New EP Act (s 22):

(1) The aspirations of the people of Victoria for environmental quality should drive environmental improvement.

(2) Members of the public should therefore be given—

(a) access to reliable and relevant information in appropriate forms to facilitate a good understanding of environmental issues;

(b) opportunities to participate in policy and program development.

73. Compliance with this principle requires that there is timely provision of information like ambient air quality monitoring data. It is the right of the communities affected by the Project to know.

74. Monitoring data is collected continuously, and there is no reason for it to not be provided daily, subject explicitly to the proviso that the data is subject to validation (which can take some time). Mr Fleer said, in response to a question from Ms Foley, that he would support daily provision of ambient air quality data (with a disclaimer) if it was possible.

15 Eg Lane Cove – condition 164; Cross City Tunnel – condition 88; NorthConnex – condition E7; M5 East/WestConnex – condition E10; M4 East – condition E10; Legacy Way – condition A12
AQ2 – provision for retrofitting of pollution control equipment (unresolved)

75. EPA has recommended, throughout consultation in relation to the preparation of the EES, that the Project include provision for retrofitting of pollution control equipment into the design of tunnel ventilation systems. This involves providing the space to retrofit filtration equipment if required in future.

76. The proponent has not advised the cost of allowing space. Mr Fleer does not know the cost, and therefore did not consider it.

77. The provision-for-retrofit approach has been the approach adopted for all existing road tunnel projects in Victoria (i.e. the West Gate Tunnel Project, East Link Tunnel and City Link Tunnel; also for the East-West Link tunnel). The approach is supported by Mr Cowan.16 The concept of facilitating future modification of tunnel ventilation systems has been adopted – with variation as to specific wording – in relation to all long tunnels built in Australia, with the possible exception of some of the earliest Sydney tunnels (for which limited information is available).

78. At the outset, EPA notes Mr Fleer’s comment that EPA has not provided any justification for requiring provision for retrofitting. Given the widespread requirement for provision for retrofitting in tunnels in Australia, EPA submits that it is up to the proponent to justify why there should not be provision for retrofitting. EPA notes that the cost of provision of airspace has not been documented, and the only analysis in the EES Technical Report B, the WAA, Mr Fleer’s evidence or Ms Lawrence’s evidence as to why there should not be provision for retrofitting is Mr Fleer’s statement that “there are considered to be no feasible scenarios which would require retrofitting of air pollution control equipment”.17

79. This argument is flawed. There are two issues. The first is the assumption that, if pollution control equipment is not required now, retrofitting of such equipment will never be desirable or necessary in the future. The second is the assertion that pollution control equipment will always be too expensive to be cost-effective.

Why might pollution control equipment be required in future?

80. First and most importantly, the health impacts of traffic-related emissions are still being considered by the scientific and medical community. It is not contentious that air emissions, including traffic-related air pollution, cause health impacts even at ‘permitted’ levels, particularly for the more vulnerable in society.18

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16 Expert witness statement of Iain Cowan, document 28g
17 Expert witness statement of Frank Fleer, document 24f, p 10
81. As Mr Fleer responds in relation to “concern about ultrafine particles emitted from vehicles and/or the lack of modelling/monitoring for this particle size fraction”: 19

…the World Health Organization recommends criteria for PM2.5 and PM10, not PM1 or PM0.1, noting that while there is considerable toxicological evidence of potential detrimental effects of ultrafine particles on human health, the existing body of epidemiological evidence is insufficient to reach a conclusion on the exposure-response relationship to ultrafine particles. Therefore no recommendations can be provided at present as to guideline concentrations of ultrafine particles methods for measuring ultrafine particles in ambient air in either Australia or overseas.

82. This is not a finding by the WHO that there are no detrimental impacts of ultrafine particles on human health; it is a finding that the science is not good enough to allow a safe level to be determined, or to assign particular consequences to particular levels.

83. The extent of health impacts directly affects the value of abatement of pollution. That is, the cost-benefit analysis for abatement changes – greater health costs means a greater expenditure on abatement is justified. Health impacts also affect applicable air quality standards – air standards respond to health impacts.

84. It is not far-fetched to suggest that standards will become more stringent over time in order to address health impacts that are not currently fully understood. In fact, evidence suggesting that tightening of standards is likely is easily found. There is currently consultation on an impact statement and draft National Environment Protection Mechanism (NEPM) to make the NO2 standards in the NEPM more stringent. Additionally, Victoria already has a goal for particles as PM2.5, to achieve, by 2025, further reductions in maximum concentrations as follows (SEPP(AAQ), cl 6(2)(b) and table 2 of schedule 2):

<table>
<thead>
<tr>
<th>Environmental Indicator (Pollutant)</th>
<th>Averaging period</th>
<th>Current EQO</th>
<th>2025 EQO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particles as PM2.5 (maximum concentration)</td>
<td>1 day 1 year</td>
<td>25 μg/m³ 8 μg/m³</td>
<td>20 μg/m³ 7 μg/m³</td>
</tr>
</tbody>
</table>

85. Second, any decision about pollution control equipment made now is based on modelling. Modelling involves uncertainty; there is a possibility of modelling being wrong. There is a possibility of it being wrong, despite Mr Fleer’s confidence in his modelling. Mr Cowan’s evidence points to numerous potential problems with the modelling undertaken. 20 The failure to account for resuspension of particulate matter. The impact of the atmospheric conversion of NO to NO2. Whether the model reflects real world driving conditions. The impact of electrical vehicles on emissions. Why there is a discrepancy between modelled in-tunnel NO levels and modelled ground level concentrations. EPA is considering Mr Cowan’s comments in detail as they relate to the WAA, but the point here is simply to demonstrate that there are a

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19 Expert witness statement of Frank Fleer, document 24f, p 8
20 Expert witness statement of Iain Cowan, document 28g
vast number of assumptions and data fed into the air quality modelling. The effect of those assumptions is uncertainty. That uncertainty is inevitable with complex modelling. EPA’s submission is that the best approach in this case is to accept a degree of uncertainty, but make sure – by ensuring that retrofitting can occur in the future – that if in fact there is a need for pollution control equipment, it can be retrofitted.

86. Third, developments in technology can lead to dramatic changes in the cost of abatement of pollution. Results that today might be impracticable to achieve might, in 10 or 20 years, be so cost-effective that their installation becomes routine. Mr Fleer suggested that the filtration technology is established and unlikely to change, but it would be foolish to dismiss this as a realistic possibility.

Is installation of pollution control equipment inevitably cost-effective?

87. The only detailed cost-benefit analysis to which Mr Fleer pointed in supporting his assertions that pollution control equipment in tunnels is not cost effective is the M5 East tunnel.

88. The M5 East trial involved retrofitting of pollution control equipment where there was no provision for retrofitting (construction of two vents of 300 metres each and a large, above ground air filtration plant, office and information centre). It was a $60 million exercise with only $15 million spent on equipment. Installation of a North East Link tunnel into a space left for retrofitting would be a far simpler – and cheaper - exercise. Comparison of capital costs is not justified.

89. The M5 East trial was – very – unsuccessful. It removed only 65% of particulate matter, compared to a target of 80% (shown to be achievable by eg the Madrid Calle 30 project). The equipment was available 84% of the time, compared with a 99.5% target availability. On many days it did not operate. Input from qualified technicians was required on an almost daily basis, dealing with equipment failures and unexpected shut downs. When AMOG sets out the operational costs for the M5 air treatment plant, it was not setting out an estimate of annual operating costs. It was setting out the costs associated with:

(a) a new system with many problems and upfront start-up personnel and frequent maintenance costs;

(b) a system that was undersized and underperforming; and

(c) a system that was not available to operate as planned.

90. In EPA’s submission, the M5 East case study establishes nothing in relation to the likely capital and operational costs of any pollution control equipment that might, in future, be installed in the North East Link tunnels. In EPA’s submission, Mr Fleer relies very heavily on the M5 East case study costs in arguing that “there are considered to be no feasible
scenarios which would require retrofitting of air pollution control equipment”. The case study is worthless for the purpose of establishing costs. Mr Fleer’s opinion is therefore based only on general statements in high-level reviews of all manner of different tunnels, without any consideration of the applicability of the studies to any future North East Link pollution control equipment.

91. It is also worth noting in this context that cost is not the only driver of abatement measures. As Mr Fleer noted, banning wood heaters is a very cost-effective way to reduce air emissions. But “it might not play out that well”. Vehicle emissions standards are effective, but it takes years for them to have an impact. Pollution control equipment for tunnel emissions has an advantage over many other emissions abatement options in that it is a single action and is effective immediately.

Other abatement measures

92. Although EPA agrees with Mr Fleer that the most cost-effective way to abate emissions at source, with vehicle emissions standards, it is irrelevant to the question of whether provision for retrofitting should be required. It is irrelevant that there might be other more cost-effective methods to improve ambient air quality. The IAC can only make recommendations in relation to measures that can be implemented by this Project, as Mr Fleer conceded. This was made clear by the WGT IAC, which noted the existence of other measures for pollution abatement and said (p 138):

…The focus for the IAC however is what this Project can do to make a difference to air quality…The IAC accepts that the cost for air quality improvement may not be as economically efficient as other measures, such as design and controls on the use of wood heaters for example; but those such approaches and programs are not before us, whereas, the tunnel design is.

93. Only requirements that can be implemented as part of the Project are within the purview of the IAC. The IAC can and in EPA’s submission should require provision for retrofitting.

Context for considering provision for retrofitting

94. The IAC’s terms of reference require its report to consider the IAC’s (emphasis added):

... 

c. recommendations as to any feasible modifications to the alignment or design of the Project that would offer beneficial outcomes;

d. recommendations and/or specific measures that it considers necessary and appropriate to prevent, mitigate or offset adverse environmental effects having regard to legislation, policy, best practice, and the principles and objectives of ecologically sustainable development;

e. recommendations for any appropriate conditions that may be lawfully imposed on any approval for the Project, or changes that should be made to the draft PSA in
order to ensure that the environmental effects of the Project are acceptable having regard to legislation, policy, best practice, and the principles and objectives of ecologically sustainable development;…

95. EPA submits that the IAC should recommend that the EPRs require provision for retrofitting on the basis that this approach offers beneficial outcomes, allows mitigation of potential adverse environmental effects, and is consistent with best practice, policy and the principles of ecologically sustainable development.

96. By “best practice”, EPA is referring to a broad concept, as the terms of reference and Guidelines seem to refer. For example:

*a procedure that has been shown by research and experience to produce optimal results and that is established or proposed as a standard suitable for widespread adoption.*

*Commercial or professional procedures that are accepted or prescribed as being correct or most effective.*

97. As set out above, the provision-for-retrofitting approach has been adopted for all road tunnels in Melbourne, and generally within Australia; it is established as a standard. In terms of producing optimal results and being effective, EPA submits that the provision-for-retrofitting approach reflects an appropriate balance, delivering the ability to take more cost-effective action in the future without imposing an unreasonable cost on the Project upfront. Of course, this balancing exercise is difficult without details of the cost of provision for retrofitting, but EPA emphasises that the proposed requirement is, in effect, to provide airspace – a small amount of airspace in the context of a $16 billion project.


*to enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations.*

99. The EP Act 1970 sets out principles of environment protection and requires that regard be had to the principles in administering the Act (s 1A(3)). These are similar to the principles of ecologically sustainable development set out in the Guidelines. The relevant principles of environment protection are:

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21 Merriam-Webster online dictionary
22 Lexico online dictionary (formerly Oxford English Dictionary online)
1B **Principle of integration of economic, social and environmental considerations**

(1) Sound environmental practices and procedures should be adopted as a basis for ecologically sustainable development for the benefit of all human beings and the environment.

(2) This requires the effective integration of economic, social and environmental considerations in decision making processes with the need to improve community well-being and the benefit of future generations.

(3) The measures adopted should be cost-effective and in proportion to the significance of the environmental problems being addressed.

1C **The precautionary principle**

(1) If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

(2) Decision making should be guided by—

(a) a careful evaluation to avoid serious or irreversible damage to the environment wherever practicable; and

(b) an assessment of the risk-weighted consequences of various options.

1D **Principle of intergenerational equity**

The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

100. This is the policy context for consideration of EPA’s arguments for provision for retrofitting, and the proponent’s experts’ arguments against such provision. EPA submits that:

(a) emissions from the tunnel ventilation system – traffic-related air pollution – do pose a threat to human health, the extent of which is still being investigated but may be large;

(b) a requirement to provide for retrofitting constitutes a cost-effective way to ensure that those emissions can be dealt with in the future, consistent with intergenerational equity; and

(c) best practice, demonstrated by adoption of the practice of requiring provision for retrofitting and consistency with the principles above.

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23 Guidelines: that decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equity considerations

24 The Guidelines do not cover the points in (2)

25 The Guidelines cover the principle of intergenerational equity in several other principles
AQ5 – Monitor compliance of in-tunnel air quality and ventilation structure emissions (unresolved)

101. AQ5 has been amended in EPRs Revision 3 (6 August 2019) to delete the requirement to take remedial action to the satisfaction of EPA Victoria if standards specified in EPR AQ2, EPR AQ3 and the licence are not met.

102. The specified EPRs relate to matters that will be regulated by an EPA licence. EPA does not support this amendment; it is appropriate that remedial action be required.

NOISE

NV3 – Minimise construction noise impacts to sensitive receptors

Inaudibility (resolved)

103. EPA expressed concerns in its submission about the approach in the EES to ‘inaudibility’, and confirmed that the objective set by EPA Publication 1254 is that achieving inaudibility relates primarily to adequate scheduling of works, with noisy activities at the less sensitive hours and inherently quiet (inaudible) activities in the night period, not to the mitigation of otherwise noisy works in order to comply to specified noise levels (unless the works are approved to be unavoidable).

104. In the same vein, item 37 of the IAC’s request for further information (document 5) requested:

   Confirmation that noise from night time construction works (other than unavoidable works) is intended to meet the EPA 1254 requirement of inaudibility in a habitable room of a dwelling at any time within the night period

105. Mr Tardio responded to the IAC’s request as follows:26

   Yes.

   In accordance with EPA 1254, this allows low impact works which do not generate any material noise levels (i.e. inaudible) to be carried out, while ensuring that intrusive works are not allowed to occur unless deemed unavoidable.

   This outcome is considerably better than approved on other recent infrastructure projects which have attempted to quantify inaudibility.

   With respect to assessing inaudibility in compliance, this can be carried out at anytime during the night and is not a quantitative measure, therefore the numerical background noise level is irrelevant during a compliance scenario.

   For the purposes of modelling and risk assessment however, the technical author has used grouped data to provide a high-level assessment of the likely impacts in practice.

26 Expert witness statement of Darren Tardio, document 24d, section 6, page 17
Mr Tardio reconfirmed this approach in oral evidence. EPA supports Mr Tardio’s interpretation.

Unavoidable works (unresolved)

EPA’s recommendation in relation to unavoidable works was dealt with in Revision 1 of the EPRs. However, revision 3 of the EPRs (6 August 2019) made further changes regarding unavoidable works:

Unavoidable Works must be verified by the Independent Environmental Auditor for each instance they are undertaken, as per EPR NV4 and include the following where these construction works do not meet the evening and night-time noise criteria outlined in this EPR, and must be verified by the Independent Environmental Auditor for each instance they are undertaken, as per EPR NV4 may include:

EPA submits that “may” should be re-inserted before “include”.

NV4 – role of EPA publication 1254 (unresolved)

The EPR requires “reference to” EPA publication 1254. This means that the publication need only be considered but need not be applied, and requests that the words “consistent with” are used instead.

NV6 – cross-reference to EPA licence (unresolved)

EPA made a number of recommendations seeking clarification and consistency in describing EPA’s role in relation to the tunnel ventilation system, including in relation to NV6. Plans for the system are submitted to and approved by EPA under the EP Act, not pursuant to the EPRs. NV6 is the only example of this kind of recommendation not being accepted.

CONTAMINATED LAND

CL1 – Implement a Spoil Management Plan

Identification of potentially contaminated land (resolved)

EPA commented in its submission that “EPR CL1 is limited to a detailed investigation of potentially contaminated areas, but does not indicate how such areas will be identified in the first place.” Dr Nadebaum states in response to this as follows:27

In responding to this, I note that EPR CL1 includes the requirements:

- Identifying where any contaminated or hazardous material is exposed during construction (notably through former landfills, service stations and industrial land) and how it will be made safe for the public and the environment. Beneficial uses of land and National Environment Protection (Assessment of Site Contamination) Measures

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27 Expert witness statement of Peter Nadebaum, document 24x
2013 guidance on criteria protective of those beneficial uses must be considered for the land uses in these areas. This must include methods for:

- Identification of the nature and depth of the contaminants

...• Identifying locations and extent of any PIW ....prior to excavation

In addition, the work will be subject to independent audit, and the auditor is to consider the adequacy of plans including the CEMP. In view of these requirements, the contractor will need to consider where contamination might exist that would be exposed during the works and have potential to affect the public and the environment, or would have potential to affect the reuse and disposal of spoil. This will require the contractor to carry out an investigation in accordance with good practice to identify where contamination might exist. In this respect, the Technical Report has carried out an investigation that is consistent with good practice for identifying contamination, and has documented where such contamination exists or is likely to exist. As such, this forms a resource for the contractor to draw on when undertaking their own program of work to identify where contamination might be present that should be considered in order to comply with the requirements of EPR CL1, and in developing a Spoil Management Plan. I believe these provisions provide a sufficient requirement for the contractor to identify where contamination might be present and to follow good practice in undertaking this work, and no revision to EPR CL1 is required.

112. Dr Nadebaum confirmed the need for additional work in his evidence. EPA takes this as an acknowledgment that further work is required, and will take place, to identify potentially contaminated land in the course of the preparation of the Spoil Management Plan.

113. On the basis of this acknowledgment, the fact that the Spoil Management Plan must be developed in consultation with EPA and the fact that the auditor is involved in reviewing the Spoil Management Plan, EPA is satisfied with this aspect of CL1.

Further consideration of re-use (unresolved)

114. EPA is concerned that opportunities for re-use of spoil may not be fully investigated. Technical Report O and the Spoil Management Strategy state that reuse opportunities may be limited due to the objective of minimising the Project footprint and limitations on space. EPR CL1 (revision 1) refers to a Spoil Management Plan being developed with reference to the Spoil Management Strategy. There is therefore, in EPA’s submission, an inferred acceptance of limited re-use.

115. EPA acknowledges that the Spoil Management Plan must be prepared in consultation with EPA, that CL1 requires regard to the waste management hierarchy, and that there may be financial benefits for a contractor to re-using rather than disposing of spoil. EPA also agrees with Dr Nadebaum’s evidence that the drafting of the EPR is a balancing exercise in terms of how much detail should be included, and that whether the need to consider re-use is sufficiently drawn out “is a matter of judgement”. EPA’s submission is however that spoil re-
use does need to be more explicitly dealt with by the EPR. That submission is based on EPA’s recent experience that achieving re-use is an issue during construction, such that further considering of re-use should be explicitly required by EPR CL1.

116. EPA submits that two of the dot points in CL1 should be re-written as below (noting the introductory words “The SMP must define roles and responsibilities and include requirements and methods for:…”):

117. Delete:

Identifying and managing potential sites for re-use, management or disposal of any spoil in accordance with the Environment Protection Act 1970 waste management hierarchy.

Identifying suitable sites for disposal of any waste. This includes identifying contingency arrangements for management of waste, where required, to address any identified capacity issues associated with the licensed landfills’ ability to receive PIW and other waste.

118. Insert:

Application of the Environment Protection Act 1970 waste management hierarchy, including:

• Ongoing identification, and where practicable adoption, of options for the re-use of spoil;

• Identifying options for management of spoil; and

• Identifying suitable sites for disposal of any waste. This includes identifying contingency arrangements for management of waste, where required, to address any identified capacity issues associated with the licensed landfills’ ability to receive PIW and other waste.

119. This re-wording would facilitate appropriate application of the waste management hierarchy, including consideration of re-use.

120. EPA would support any proposal for a technical working group in relation to landfill capacity and the management of spoil from major projects.

GROUNDWATER

GW2 – Monitor groundwater

Existing contamination plumes (unresolved)

122. Dr Nadebaum agreed that there are two groups potentially affected by that dislocation – the Project and those under whose land the contaminated groundwater is dislocated. He agreed that, to some extent, whether one is affected by dislocation depends upon the extent of the contaminant plume, and that the plumes have not been delineated at this time.

123. Dr Nadebaum said that the EPRs, specifically GW2, require delineation of contaminant plumes, although he agreed that there was no specific mention of this, and that the requirement to “establish baseline water level and quality conditions throughout the study area” was high level. Dr Nadebaum’s evidence was that he would not object to the inclusion of the additional words proposed by EPA “including delineation of existing contaminant plumes” provided that the obligation was limited to plumes impacted by the Project.

124. EPA maintains that GW2 is not sufficiently clear as drafted in relation to delineation of contamination plumes. It accepts Dr Nadebaum’s suggested qualification as reasonable and proposes inclusion of:

…including the delineation, between the source(s) and the project, of any existing contaminant plume(s) that is impacted upon by the project.

Surface water

125. In SW4, replace reference “SEPP (Waters of Victoria)” with “SEPP (Waters)”.

126. In SW5, delete reference to EPA Publication 1698. As per EPA’s initial submission, EPA Publication 347.1 Bunding Guidelines have been superseded by the EPA Publication 1698 Liquid Storage and Handling Guidelines 2018. The Liquid Storage and Handling Guidelines are no longer relevant to erosion and sediment control. Reference to Publication 347.1 has been correctly deleted, but reference to Publication 1698 has been erroneously included.

SCC2 – greenhouse gas reduction measures (unresolved)

127. EPA’s submission sought more detail in relation to greenhouse gas reduction measures proposed by the Project. EPA is concerned that the EPR as drafted is too vague; it does not communicate any sense of the type or quantum of action required. EPA submits that the IAC should recommend that specific, meaningful targets or actions be included in EPR SCC2, and that reference to “best practice for major infrastructure projects” should be included in the EPR.

128. The response of the proponent’s expert, Mr Young, was:28

NELP has set minimum sustainability objectives and targets for the Project which contractors will be required to meet. Relevant targets include:

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28 Expert witness statement of Tom Young, document 24aa, p 5
(i) ‘Achieve at least a 30% reduction in carbon emissions from the construction of the North East Link against an Infrastructure Sustainability Council of Australia (ISCA) verified base case calculated in accordance with their independent standards.

(ii) Use a minimum of 50% of renewable energy for all electricity used to construct the North East Link.

(iii) Achieve net zero emissions in the operation and maintenance of the North East Link*. (*Note this does not include emissions from traffic using the North East Link. Residual emissions would be offset with renewable energy in favour of other offsets to achieve net zero emissions)

(iv) Reduce the amount of Portland Cement content in concrete across the project by a minimum of 30% (against Green Building Council of Australia reference mix design levels subject to durability and strength requirements).

129. EPA requests that these targets be specified in the EPR with an additional sentence: “These measures will include:....”

130. Mr Young’s evidence is that the proponent has committed to these targets already, which means that documenting that commitment in the EPRs should not be an issue.

131. EPA notes that the Project has committed to using ISCA’s Infrastructure Sustainability Rating Tool to set critical benchmarks and evaluate sustainability performance” (Sustainability Strategy). EPA would also support including ISCA-based targets in EPR SCC2, similar to those used for the West Gate Tunnel Project (GGP2):

*In detailed design, consider the selection of materials and monitor energy and carbon during construction, to target reductions for GHG emission impacts of materials and energy consumption in accordance with Mat-1 (Level 2) and Ene-1 (Level 2) credits of the Infrastructure Sustainability (IS) rating tool (v1.2). Investigate opportunities to use green power sourced from renewable energy and bio diesel where practicable.

Target Ene-1 (Level 2.7) credits of the Infrastructure Sustainability (IS) rating tool (v1.2), above the minimum Project requirement of Level 2.

132. The West Gate Tunnel EPRs specified a performance objective of: “To manage greenhouse gas emissions by targeting an ‘Excellent’ rating on the ISCA rating framework for Design and As Built”. EPA submits that the inclusion of the same performance objective for the Project is appropriate.

INDEPENDENT ENVIRONMENTAL AUDITOR

133. EPA has proceeded on the basis that the Independent Environmental Auditor will verify all plans required by all EPRs. This is on the basis of a statement in Table 27-3 Environmental management documents – required content and approval process – to that effect (page 27-18) (emphasis added):

The EPRs (Section 27.7) set out requirements for contractors to prepare relevant management plans to avoid, minimise and mitigate impacts.
All assessments and plans required under these EPRs are to be prepared by suitably qualified and experienced personnel and verified as adequate and compliant with the EPRs by the Independent Environmental Auditor.

Where appropriate, the management plans required by these EPRs may be included as part of the CEMP or OEMP rather than as stand-alone plans.

134. EPR EMF3 is consistent with Table 27-3, providing that the auditor will be appointed to (emphasis added):

- Review the Environmental Strategy, CEMP, WEMPs, OEMP and other plans required by the EPRs for compliance with the EMF and the EPRs
- Undertake environmental audits of compliance with and implementation of the EPRs and the Environmental Strategy, CEMP, WEMPs, OEMP and other plans required by the EPRs.

135. EPA strongly supports this role for the auditor of reviewing and verifying all plans required under all EPRs.

136. EPA understands that, in practice, the ‘Independent Environmental Auditor’ is a group of auditors, rather than one single auditor, and that at least one EPA-accredited (or ‘statutory’) auditor would be included in the group. EPA supports this practice.

CONSULTATION

137. As the Project is constructed and implemented, EPA will have limited opportunity to review and assess proposals and consider whether any further conditions are required to avoid, manage or mitigate adverse environmental and human health impacts. EPA has full powers as the regulator in relation to the works approval and licensing regime applicable to the tunnel ventilation system. But beyond this, EPA’s involvement is limited to a consultation role; there are no matters specified in the Incorporated Document, the EMF generally or the EPRs specifically as requiring EPA’s approval (other than matters relating to the works approval or licence for the tunnel ventilation system).

138. “Consult” is a term with a flexible meaning. The EMF sets out what is and is not involved in consultation in relation to the EMF. Section 27.2.2 is entitled ‘consultation required by EPRs’ and provides:

Many EPRs require consultation with relevant stakeholders. Relevant stakeholders are generally defined as stakeholders with a role as the responsible authority for the requirement specified, the manager or owner of an asset or land directly affected by the works or requirement, an emergency services agency, or other relevant stakeholders identified by NELP.

The purpose of consultation is to enable stakeholder views, requirements and relevant information held by the stakeholder to be considered when implementing the EPR. Consultation may include meetings, workshops and exchange of documentation and correspondence between NELP or its contractors, but would not
necessarily require the submission of written documentation or draft plans for formal comment to any particular stakeholder.

Where an EPR is expressed as requiring or being subject to the agreement or requirements of a stakeholder, NELP would use reasonable endeavours to reach agreement with that stakeholder. In the event that NELP uses reasonable endeavours but is unable to reach an agreement with the stakeholder, the EPR would be reviewed and where required NELP would submit a written request to the Minister for Planning to amend the EPR as per Section 27.5.2. Such a request would be accompanied by a written explanation of the reasonable endeavours used by NELP to reach an agreement on the subject matter of the EPR and the stakeholder’s response.

The extent and method of consultation would be documented and communicated to relevant stakeholders for each EPR. Consultation outcomes would be documented to demonstrate compliance with the EPRs. Consultation outcomes would be shared with the relevant stakeholder and feedback provided on how matters raised during consultation have been considered and, where appropriate and reasonable, addressed by NELP.

139. This is insufficient for EPA.

140. EPA also has concerns about the provision of the reports of the Independent Audit. Audit reports are provided only to NELP and the Contractor. EPA will, like the public, receive only a six-monthly summary report, and possibly advice from NELP. EPA considers that full reports relevant to EPA’s areas of interest should be provided to EPA upon request.

141. EPA appreciates the challenges of coordinating approvals and consultation for a major infrastructure project, and for that reason has not requested that its approval be required for plans etc within its area of expertise. It has commenced negotiations with the proponent in relation to a consultation protocol (including provision of audit reports), to operate outside the formal regulatory framework.

142. EPA will continue to seek to resolve these matters with the proponent but requests the opportunity to update the IAC in relation to whether EPA seeks amendments to the EMF in relation to consultation with EPA and provision of audit reports prior to the conclusion of the hearing.

PROPOSED PLANNING SCHEME AMENDMENT GC98

143. Subject to the resolution of the outstanding issues set out in these submissions, EPA considers that proposed Planning Scheme Amendment GC98 would, in combination with any works approval and licence for the Project and in the context of the broader environmental regulatory regime, establish an appropriate framework to manage and mitigate the potential impacts of the Project on the environment, amenity (so far as it relates to matters within EPA’s expertise) and human health.
Alexandra Guild
Isaacs Chambers
Counsel for Environment Protection Authority Victoria
8 August 2019
Notice

ENVIRONMENT PROTECTION ACT 1970
SECTION 22(1)
NOTICE TO SUPPLY FURTHER INFORMATION

TO: North East Link Project, a division of the Major Transport Infrastructure Authority, an administrative office in relation to the Department of Transport (ABN 69981 208 782)

WHEREAS an application by you for a works approval in respect of North East Link Tunnel Ventilation System in Victoria was received by the Environment Protection Authority ("the Authority") on 7 March 2019.

AND WHEREAS we consider the information specified herein is necessary and relevant to the consideration of the application

NOW TAKE NOTICE that pursuant to section 22(1)(a) of the Environment Protection Act ("the Act") North East Link Project is HEREBY REQUIRED to supply to the Authority by 5.00pm on the 5th day of September 2019 the information specified in Attachment A of this notice.

DATED: 6 August 2019

.............................................
QUENTIN COOKE
DELEGATE OF THE
ENVIRONMENT PROTECTION AUTHORITY
ATTACHMENT A

Ventilation stack heights
1. Explain how the heights of the southern and northern stacks were optimised.

Ventilation system concept design
2. Explain how the proposed ventilation system was determined (versus alternatives), as well as fresh air intake points (if any other than tunnel portals) and distribution/regulation system.

3. Provide the following information:
   a) ventilation velocities, number of jet fans and axial fans in use, dilution of air requirements and tunnel air flow rates with calculations to justify the proposed maximum ventilation velocities of 1,290 m³/s.

   b) the control for meeting in-tunnel air performance criteria for CO, NO₂, visibility and the tunnel air flow velocity, as specified in section 5.1 of the works approval application. This must include logic diagrams with:
      i. plots showing air flow velocities, air quality for CO, NO₂, visibility and jet fan requirements throughout the tunnel; and
      ii. locations of air monitoring and instruments.

   c) the information for a) to b) i must include the following situations:
      i. normal free flowing traffic in range 0, 10, 20 to 80 kph for the forecast maximum number of vehicles per hour;
      ii. congested traffic 3 lanes at 20 kph;
      iii. congested traffic 3 lanes stop/start at approximately 10 kph; and
      iv. fire incident.

   d) control of smoke ‘back layering’ in the event of fire up to 50MW.

4. Provide analysis of the worst-case situation with supporting modelling analysis results, including, but not be limited to, congested traffic 3 lanes stop/start at 20 and 10 kph for the forecast maximum number of vehicles per hour during peak hours (i.e. 6~9am or 6~8pm).

Abnormal operation/ emergency management
5. Provide the basis and criteria for the detailed design of the emergency ventilation stacks.
Notice

6. Provide an explanation of how the tunnel ventilation system will be operated to protect the health of people using the tunnel in the event of abnormal operating conditions. The abnormal operating conditions should include consideration of:
   a) fire;
   b) major equipment failures (i.e. the jet fans and/or ventilation fans, etc.);
   c) congested traffic at or below 20 kph for the forecast maximum number of vehicles;
   d) other incidents that potentially adversely affect the operation of the ventilation system (i.e. extreme heat, flooding and spills); and
   e) the information for a) to d) must include the following:
      i. the frequency of occurrence; and
      ii. confirmation of in-tunnel air quality standards for CO, NO\textsubscript{2} and visibility would be maintained. If these standards can’t be achieved, what could the in-tunnel air qualities be for those parameters?

Air emission modelling

7. Provide the following air modelling files to allow EPA to check:
   f) NO\textsubscript{2}\_WO\_BKGRND.ADI;
   g) the hourly input emission file(s) for the various stack sources;
   h) the hourly NO\textsubscript{2} background file;
   i) the receptor/terrain file; and
   j) the meteorological files – surface and upper air.

8. Clarify what traffic speeds were used for the air emission modelling.

Occupier

9. Confirm which legal entity is proposed to hold any works approval, if issued.

10. Confirm that Mr. Duncan Elliott is authorised to act on behalf of the above-mentioned legal entity.

11. Provide evidence which demonstrates that the above mentioned legal entity is (or will be) in occupation or control of the premises upon which the northern and southern ventilation structures are proposed to be constructed.
<table>
<thead>
<tr>
<th>Current EPR</th>
<th>EPA position</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AQ1</strong> Implement a Dust and Air Quality Management and Monitoring Plan to minimise air quality impacts during construction</td>
<td><strong>Replace:</strong> “trigger levels” with “triggers” (final bullet point).</td>
</tr>
<tr>
<td>Prepare and implement a Dust and Air Quality Management and Monitoring Plan(s), in consultation with EPA, which sets out best practice measures and controls to minimise and monitor impacts on air quality during construction. The plan(s) must:</td>
<td></td>
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<tr>
<td>• Set out how the project will monitor and control the emission of smoke, dust, fumes, odour and other pollution into the atmosphere during construction using best practice measures with reference to EPA Victoria Publication 480 Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites and in accordance with the State Environment Protection Policy (Ambient Air Quality Management) and with reference to EPA Victoria Publication 480 Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites</td>
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<tr>
<td>• Identify the main sources of dust and airborne pollutants, and the location of sensitive land uses relevant to construction areas</td>
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<tr>
<td>• Describe the proposed air quality and dust management and monitoring requirements for construction areas, including particulate matter monitoring where deemed to be required, and with reference to sensitive receptors and utilising consistent and common monitoring across the project.</td>
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<tr>
<td>• <strong>Describe the air quality trigger levels for investigation</strong>, describe the mitigation measures, and the processes for that will be implementing appropriate controls to ensure compliance with air quality criteria.</td>
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<tr>
<td>• Describe monitoring requirements for key sensitive receptors</td>
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<tr>
<td><strong>AQ2</strong> Design tunnel ventilation system to meet EPA requirements for air quality</td>
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<tr>
<td>Design, construct and operate the permanent tunnel ventilation system to meet the requirements of the State Environment Protection Policy (Air Quality Management) and in accordance with the requirements of the EPA Victoria Works Approval and the EPA Victoria Licence.</td>
<td>Design, construct and operate the permanent tunnel ventilation system to meet the requirements of the State Environment Protection Policy (Air Quality Management) and in accordance with the requirements of the EPA Victoria Works Approval and the EPA Victoria Licence. The design should include provision for retrofitting of tunnel ventilation pollution control equipment if subsequently required.</td>
</tr>
<tr>
<td>Current EPR</td>
<td>EPA position</td>
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| **AQ4** Monitor ambient air quality  
Develop and undertake an ambient air quality monitoring program in consultation with EPA Victoria to measure the air quality impacts of North East Link during construction and operation. The ambient air quality monitoring program must include at least one year of monitoring before operation; continue for 5 years after commencement of North East Link operation; and, for the ventilation structures, be in accordance with the EPA Victoria licence. Results of the monitoring program are to be made publicly available. | Develop and undertake an ambient air quality monitoring program in consultation with EPA Victoria to measure the air quality impacts of North East Link during construction and operation. The ambient air quality monitoring program must be undertaken at at least six site locations including the sites where ambient air quality monitoring has occurred during the EES and a site where the highest increases of air pollution are predicted to occur (e.g. between Yallambie Road and the M80 Ring Road interchange); include at least one year of monitoring before operation; continue for 5 years after commencement of North East Link operation and, for the ventilation structures, be in accordance with EPA Victoria licence. Monitoring results are to be assessed against the Environmental Quality Objectives of the State Environment Protection Policy (Ambient Air Quality). Results of the monitoring program are to be made publicly available on a website related to the project, or through EPA Victoria’s Air Watch website, on a daily basis. |
| **AQ5** Monitor compliance of in-tunnel air quality and ventilation structure emissions  
Monitor the in-tunnel air quality and ventilation structure emissions during operation of the ventilation system to demonstrate compliance with EPR AQ2, EPR AQ3 and the EPA Victoria licence to the satisfaction of EPA Victoria. Report the monitoring results publicly after validation and in accordance with the EPA Victoria licence.  
Take remedial action to the satisfaction of EPA Victoria if standards outlined in EPR AQ2, EPR AQ3 and the EPA Victoria licence are not met, report to EPA Victoria and investigate the cause of the exceedance. | Re-instate:  
Take remedial action to the satisfaction of EPA Victoria |
<table>
<thead>
<tr>
<th>Current EPR</th>
<th>EPA position</th>
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</thead>
<tbody>
<tr>
<td><strong>NV3</strong></td>
<td><strong>Insert ‘may’ as indicated.</strong></td>
</tr>
<tr>
<td><strong>Unavoidable Works</strong></td>
<td>Unavoidable Works must be verified by the Independent Environmental Auditor for each instance they are undertaken, as per EPR NV4 and <strong>may</strong> include the following, where these construction works do not meet the evening and night time noise criteria outlined in this EPR, and must be verified by the Independent Environmental Auditor for each instance they are undertaken, as per EPR NV4: <strong>may</strong> include</td>
</tr>
<tr>
<td>• The delivery of oversized plant or structures that police or other authorities determine require special arrangements to transport along public roads</td>
<td></td>
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<tr>
<td>• Emergency work to avoid the loss of life or damage to property, or to prevent environmental harm</td>
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<tr>
<td>• Maintenance and repair of public infrastructure where disruption to essential services and/or considerations of worker safety do not allow work within standard hours</td>
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<tr>
<td>• Tunnelling works including mined excavation elements and the activities that are required to support tunnelling works (ie spoil treatment facilities)</td>
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<td>• Road and rail occupations or works that would cause a major traffic hazard</td>
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<tr>
<td>• Other works where a contractor demonstrates and justifies a need to operate outside normal working hours and exceed the noise guideline targets such as work that once started cannot practically be stopped.</td>
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</table>

<table>
<thead>
<tr>
<th><strong>NV4</strong></th>
<th>Amendment:</th>
</tr>
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<tbody>
<tr>
<td><strong>Implement a Construction Noise and Vibration Management Plan (CNVMP) to manage noise and vibration impacts</strong></td>
<td>The CNVMP must either include a clear rationale for defining works or a list of the type of planned works that constitute Unavoidable Works and response strategies to mitigate the impacts of these Unavoidable Works, with reference to consistent with EPA Victoria Publication 1254 Noise Control Guidelines and with reference to Appendix B and Appendix C of the CNVG</td>
</tr>
<tr>
<td>Current EPR</td>
<td>EPA position</td>
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<tr>
<td>• The Unavoidable Works (as defined in NV3) that would be undertaken, including their location, timing and duration. The CNVMP must either include a clear rationale for defining works or a list of the type of planned works that constitute Unavoidable Works and response strategies to mitigate the impacts of these Unavoidable Works, with reference to EPA Victoria Publication 1254 Noise Control Guidelines and Appendix B and Appendix C of the CNVG. The Independent Environmental Auditor must verify that the proposed Unavoidable Works meet the definition of Unavoidable Works (as defined in NV3) for each instance they are undertaken. Details of Unavoidable Works must be made publicly available. For emergency Unavoidable Work, a rationale must be provided to the satisfaction of the Independent Environmental Auditor as soon as practicable. The CNVMP will be reviewed and verified by the Independent Environmental Auditor.</td>
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<tr>
<td>NV6 Design permanent tunnel ventilation system and relevant fixed infrastructure to meet EPA requirements for noise</td>
<td>Design and implement the permanent tunnel ventilation system and relevant fixed infrastructure that is subject to achieve compliance with State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 [SEPP N-1] to achieve compliance with SEPP N-1 and in accordance with the Works Approval. Provide detailed design of the tunnel ventilation system to the satisfaction of EPA Victoria prior to commencement of the works permitted by the Works Approval.</td>
</tr>
<tr>
<td>CL1 Implement a Spoil Management Plan</td>
<td>Design and implement the permanent tunnel ventilation system and relevant fixed infrastructure that is subject to achieve compliance with State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 [SEPP N-1] to achieve compliance with SEPP N-1 and, for the tunnel ventilation system, in accordance with the Works Approval and the EPA Victoria Licence. Provide detailed design of the tunnel ventilation system to the satisfaction of EPA Victoria prior to commencement of the works permitted by the Works Approval. Delete:</td>
</tr>
<tr>
<td>...</td>
<td>• Identifying and managing potential sites for re-use, management or disposal of any spoil in accordance with the Environment Protection Act 1970 waste management hierarchy</td>
</tr>
<tr>
<td>...</td>
<td>• Identifying suitable sites for disposal of any waste. This includes identifying contingency arrangements for management of waste, where required, to address any identified capacity issues associated with the licensed landfills’ ability to receive PIW and other waste.</td>
</tr>
<tr>
<td>Current EPR</td>
<td>EPA position</td>
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</table>
| - Identifying and managing potential sites for re-use, management or disposal of any spoil in accordance with the Environment Protection Act 1970 waste management hierarchy  
- Identifying suitable sites for disposal of any waste. This includes identifying contingency arrangements for management of waste, where required, to address any identified capacity issues associated with the licensed landfills’ ability to receive PIW and other waste.  
- In areas used for temporary construction works, contamination attributable to the project must be appropriately remediated in consultation with the relevant land manager. | Insert:  
Application of the Environment Protection Act 1970 waste management hierarchy, including:  
- Ongoing identification, and where practicable adoption, of options for the re-use of spoil;  
- Identifying options for management of spoil; and  
- Identifying suitable sites for disposal of any waste. This includes identifying contingency arrangements for management of waste, where required, to address any identified capacity issues associated with the licensed landfills’ ability to receive PIW and other waste. |

GW2 **Monitor groundwater**  
Develop and implement a pre-construction, and construction groundwater monitoring program to:  
- Establish baseline water level and quality conditions throughout the study area  
...  
Amendment to first point:  
Establish baseline water level and quality conditions throughout the study area, including the delineation, between the source(s) and the project, of any existing contaminant plume(s) that is impacted upon by the project.

SW4 **Monitor water quality**  
[not reproduced]  
Replace: reference to “SEPP (Waters of Victoria)” with “SEPP(Waters)"

SW5 **Implement a Surface Water Management Plan during construction**  
Develop and implement a Surface Water Management Plan, in consultation with EPA Victoria, for construction that sets out requirements and methods for:  
- Best practice sediment and erosion control and monitoring, in general accordance with EPA Victoria publications 275 Construction techniques for sediment pollution control, 347.1 Bunding Guidelines, 168 Liquid and Storage Handling Guidelines, 480 Best Practice Environmental Management Environmental Guidelines for Major Construction Sites, 960 Temporary Environmental Protection Measures for Subdivision Construction Sites, and  
Delete: the yellow text inserted as part of Revision 2
<table>
<thead>
<tr>
<th>Current EPR</th>
<th>EPA position</th>
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</thead>
<tbody>
<tr>
<td>Industrial Waste Resource Guideline 701 Sampling and analysis of waters, wastewaters, soils and wastes</td>
<td></td>
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</tbody>
</table>
| **SCC2** Minimise greenhouse gas emissions  
Integrate sustainable design practices into the design process and implement these to minimise, to the extent practicable, greenhouse gas emissions arising from construction, operation and maintenance of North East Link. | EPA requests that EPR SCC2 be amended to include actions that may be applied during design to reduce greenhouse gas impacts. See submission for details. |