

# Appendix A – Environmental performance requirements

The IAC recommended specific changes to many of the EPRs that the proponent tabled in closing submissions at the IAC hearing. That version of the EPRs had itself developed from the EPRs published in the exhibited EES. I commend the proponent for the changes it proactively adopted in response to matters raised by submitters. I generally support the IAC’s recommended version of each EPR except where qualified below in the Minister’s assessment column.

The table below contains the proponent's fourth version of the EPRs, that was tabled at the IAC hearing, and incorporates recommended changes from the IAC denoted as either ‘additions’ and/or ‘deletions’.

| #   | Environmental Performance Requirement  | Minister’s assessment   |
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| <b>Environmental Management Framework</b> |  |   |
| EMF1                                      | <p><b>Deliver the Project in general accordance with an Environmental Management System</b></p> <p>1. Develop, implement and maintain an Environmental Management System (EMS) for use through the construction and operation of the Project that conforms with AS/NZS ISO 14001:2016 <i>Environmental Management Systems – requirements with guidance for use</i>.</p>  | Supported   |
| EMF2                                      | <p><b>Develop and deliver the Project in accordance with Management Plans</b></p> <p>1. Prepare and implement an Environmental Strategy, Construction Environmental Management Plan (CEMP), Worksite Environmental Management Plans (WEMPs), Operation Environmental Management Plan (OEMP) and other plans as required by the Environmental Performance Requirements (EPRs) and in accordance with the Environmental Management Framework (EMF).</p> <p>2. <u>Develop the</u> CEMP, WEMPs and OEMP <del>must be developed</del> in consultation with relevant stakeholders as required by relevant EPRs.</p> <p>3. <u>Ensure</u> performance against each CEMP, WEMP and OEMP and other plans <del>required to comply</del> with the EPRs and relevant environmental legislation must be reported to SRLA and relevant government agencies as appropriate. Reporting and notification requirements may include, but not be limited to, monthly environmental performance reports.</p> <p>4. Address the requirements for the CEMP and OEMP <del>must address the requirements for these plans</del> as outlined in the EMF and include the management of chemicals, fuels and hazardous substances. The <u>plans</u> must include but not be limited to:</p> <p>a) Requirements to minimise storage of chemicals and fuels on site and to store hazardous substances in accordance with relevant guidelines and EPA requirements</p> <p>b) Measures to be implemented for the management, storage (including bunding) and disposal of hazardous substances</p> <p>c) Description of the approach to comply with the Victorian WorkCover Authority and the Australian Standard AS1940 Storage Handling of Flammable and Combustible Liquids with reference to EPA Victoria Publications: Civil construction, building and demolition guide (EPA Publication 1834), Liquid Storage and Handling Guidelines (EPA Publication 1698), and Construction – guide to preventing harm to people and the environment (EPA Publication 1820.1) (as amended or replaced from time to time).</p> <p>d) Contingency and emergency response procedures to handle fuel and chemical spills, including availability of on-site hydrocarbon spill kits.</p> | Supported   |
| EMF3                                      | <p><b>Audit and report on environmental compliance</b></p> <p>1. Appoint an Independent Environmental Auditor (IEA) to:</p> <p>a) Review the Environmental Strategy, CEMP, WEMPs, OEMP and other plans required by the EPRs for compliance with the EMF and the EPRs.</p> <p>b) 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.</p> <p>c) Audit the Project’s compliance with environmental duties under the EP Act, including frequency of evaluation, monitoring of compliance, reporting of compliance and non-compliances and further actions taken.</p>  | Supported in principle with amendment to include reference to frequency of summary public audit reports (every 6 months during construction). |

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|                                     | <p>d) Verify there are processes in place to identify opportunities for continual improvement in environmental management, performance, legislative and policy compliance.</p> <p>2. <u>Ensure</u> the IEA <del>will</del> <u>comprises</u> a body of professionals with expertise, based on qualifications and experience, appropriate to allow the roles specified for the IEA in the EMF to be properly carried out. This would include professionals:</p> <p>a) appointed pursuant to section 208 of the EP Act as an environmental auditor for contaminated land and groundwater given the potential risk of acid sulfate soils, and to ensure that there is no risk of vapour or gas intrusion from former landfills.</p> <p>b) with expertise in addressing noise and vibration so the IEA can audit and approve matters relating to noise and vibration impacts and have the relevant competencies<sup>1</sup> to assess ‘unavoidable work’.</p> <p>c) with expertise in air quality.</p> <p>d) with expertise in stakeholder and communications engagement.</p> <p>e) with expertise in arboriculture.</p> <p>3. <u>Ensure</u> audits <del>must</del> occur during construction and for two years after commencement of operation of the Project, or until the Minister for Planning is satisfied the audits by the IEA are no longer required.</p> <p>4. <u>Make public the</u> Summary Reports of the audits <del>must be made public</del> within <u>one</u> month of being provided to the Minister for Planning.</p> |   |
| EMF4                                | <p><b>Develop and implement a Complaints Management System</b></p> <p>1. Develop and implement a process for recording, managing, and resolving complaints received from affected stakeholders <del>must be developed and implemented</del>. The complaints management arrangements must:</p> <p>a) be consistent with Australian Standard AS/NZS 10002: 2014 Guidelines for Complaints Management in Organisations.</p> <p>b) <u>include response performance measures including but not limited to, set time frames in which to respond to complaints, instant assessment of complaints and provision of summary reports to complainant.</u></p> <p>2. <u>Ensure</u> the complaints management system <del>must be is</del> consistent with the communications and stakeholder engagement framework required under EPR SC1.</p>  | Supported   |
| <b>Aboriginal Cultural Heritage</b> |  |   |
| ACH1                                | <p><b>Comply with the Cultural Heritage Management Plan</b></p> <p>1. Implement and comply with Cultural Heritage Management Plans (CHMPs) approved under the <i>Aboriginal Heritage Act 2006</i>.</p>   | Supported   |
| <b>Air Quality</b>                  |  |   |
| AQ1                                 | <p><b>Develop and implement an Environmental Air Pollution and Dust Management Plan (EAPDMP)</b></p> <p>2. Develop and implement an Environmental Air Pollution and Dust Management Plan (EAPDMP) for each site in consultation with the EPA.</p> <p>3. The plans must:</p> <p>a) Identify the main sources of dust, odour, construction vehicle emissions and airborne pollutants, and the location of sensitive receptors.</p> <p>b) Set out how the Project will control the emission of dust, odour, vehicle emissions and other pollution into the atmosphere during construction (<u>including during any breaks in construction</u>) so far as reasonably practicable in accordance with EPA Victoria Publication 1856 and with reference to EPA Victoria Publication 1834.</p> <p>c) Include a Risk Management and Monitoring Program (RMMP) that outlines monitoring methods that will be employed for the duration of the works, and actions that arise from the results of analysing that information to enable responsive and timely intervention and mitigation in accordance with Draft EPA Victoria Publication 1961. The RMMP should:</p>  | Supported in principle subject to amendment to item 3 c) ix in line with my assessment. |

| #   | Environmental Performance Requirement  | Minister’s assessment  |
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|     | <ul style="list-style-type: none"> <li>i. Detail the visual observation and instrumental monitoring methods to be adopted including monitoring specified in EPR AQ2, routine visual checks of site activities, CCTV monitoring of major dust sources, and observations of odour and dust soiling beyond the construction site boundary.</li> <li>ii. Define trigger levels or conditions for each monitoring method that inform the need for additional control actions. The averaging period associated with the trigger levels for data records from the instrumental monitoring in EPR AQ2 should be no longer than one hour, or shorter if found to be necessary to manage potential impacts in real time.</li> <li>iii. Outline how monitoring and recording of wind speed and direction will be undertaken and documented.</li> <li>iv. Describe methods for transmitting the data to the relevant site manager(s) in real time to inform the implementation of adaptive management of dust or odour sources.</li> <li>v. Detail a Trigger-Action-Response Protocol (TARP) that defines the methods of reviewing and adapting activities in response to the monitoring data if any triggers are exceeded.</li> <li>vi. Outline the approach for reviewing the monitoring data on a monthly basis at each site, or more often, for the purpose of assessing the effectiveness of the RMMP for each site and making adjustments to the monitoring methodology as necessary to improve the ability to implement the RMMP.</li> <li>vii. Document a process for daily and weekly review of planned activities and forecasted environmental conditions to identify whether any particular construction activities planned need to be rescheduled or monitored more closely than usual, or whether additional mitigation controls are required to proactively address potential risks of impacts from air pollution.</li> <li>viii. Document a process for quarterly reporting of verified air quality monitoring data to be published on the Project website within one month of the end of each quarter.</li> <li>ix. <a href="#">Make available on a publicly accessible project website:</a> <ul style="list-style-type: none"> <li>• <a href="#">real-time air quality monitoring results (with explanation of the limitations of unverified data); and</a></li> <li>• <a href="#">verified monthly air quality monitoring results, to be published within one month after the end of the relevant month.</a></li> </ul> </li> <li>d) Describe processes for identifying opportunities for continual improvement in management of air quality impacts from construction.</li> <li>e) Document how any processes and measures to be implemented as part of the Communications and Stakeholder Engagement Plan would be considered in implementation of the EAPDMP including managing matters of interest raised by key stakeholders through development and implementation of the CSEP, <a href="#">situations where a Trigger Action Response Protocol has been initiated</a> and measures concerning complaints management (see EPR SC2).</li> <li>f) Detail of the complaints management system, consistent with the requirements of EPR EMF4.</li> </ul> |                        |
| AQ2 | <p><b>Monitor air quality prior to and during construction</b></p> <ul style="list-style-type: none"> <li>1. As part of the implementation of the Risk Management and Monitoring Plan required by EPR AQ1: <ul style="list-style-type: none"> <li>a) Conduct instrumental monitoring of PM10 concentrations in accordance with or calibrated to AS/NZS 3580.9.8- 2008, or another method selected in consultation with the EPA. Any data collected using AS/NZS 3580.9.8-2008 must be adjusted using a temperature factor in accordance with the National Environment Protection (Ambient Air Quality) Measure Technical Paper No. 10 as required by EPA Publication 440.1. Monitors should be positioned at a location representative of the likely highest impacts at or outside the boundaries in the direction of sensitive receptors in accordance with AS/NZS 3580.1.1-2007 for each of the following locations: <ul style="list-style-type: none"> <li>i. SRL station at Cheltenham</li> </ul> </li> </ul> </li> </ul>  | Supported in principle |

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|                      | <ul style="list-style-type: none"> <li>ii. SRL station at Clayton</li> <li>iii. SRL station at Monash</li> <li>iv. SRL station at Glen Waverley</li> <li>v. SRL station at Burwood</li> <li>vi. SRL station at Box Hill</li> <li>vii. Stabling Facility</li> </ul> <p>as well as at a representative control site or sites.</p> <ul style="list-style-type: none"> <li>2. <u>Measure</u> wind speed and direction <del>should also be measured</del> at each monitoring site in accordance with AS/NZS 3580.14:2014, <u>noting measuring of wind speed and direction</u> <del>but</del> is not required at the representative control site(s).</li> <li>3. <u>Make the results of the air quality monitoring on a publicly available project website, as per EPR AQ1.</u></li> </ul>   |   |
| <b>Arboriculture</b> |  |   |
| AR1                  | <p><b><u>Develop and Implement a Tree Inventory Database</u></b></p> <ul style="list-style-type: none"> <li>1. <u>Develop and implement a tree inventory database for all trees in proximity to works. Trees to be assessed must include all trees within the project boundaries and any trees outside of the project boundaries where their TPZ would encroach on the project boundary by more than 10%.</u></li> <li>2. <u>Assess each tree individually to provide for each tree having its own record.</u></li> <li>3. <u>Measure trunk DBH and DAB for accurate calculation of TPZs and SRZs in accordance with AS4970-2009 Protection of Trees on Development Sites.</u></li> <li>4. <u>Ensure tree assessment criteria should as a minimum include botanical name, common name, height, canopy width, DBH, DAB, health, structure, useful life expectancy and arboricultural retention value.</u></li> <li>5. <u>Complete the tree inventory database in stages as works progress. Tree assessments should not be more than 2 years old when the project works begin in any particular area.</u></li> <li>6. <u>Update and record new features in the database as required, as well as retaining historical records.</u></li> <li>7. <u>Record each tree location in the database and utilise its surveyed location as recorded when the feature survey is completed.</u></li> <li>8. <u>Include native trees in the tree inventory database to ensure consistent numbering for native vegetation requirements in accordance with EC1 and EC2.</u></li> </ul> | <p>Supported in principle with amendments.</p> <p>Capture the social value of trees in consultation with local land managers, including council.</p> <p>The Tree Inventory Database should be a repository of tree health, horticultural value, biodiversity value and social value. The tree inventory database should be used to inform AR2, AR3 and AR4.</p> |
| AR4 <sup>2</sup>     | <p><b><u>Develop and implement Tree Removal Plans</u></b></p> <ul style="list-style-type: none"> <li>1. Develop and implement Tree Removal Plans, as part of the CEMP, in consultation with affected land managers, that identifies all trees within the Project Land and includes: <ul style="list-style-type: none"> <li>a) Trees to be removed or retained as part of the works</li> <li>b) The condition and arboricultural value of the amenity trees to be removed</li> <li>c) The canopy area of all trees to be removed.</li> </ul> </li> <li>2. <u>Maximise</u> tree retention <del>must be maximised</del> so far as reasonably practicable through detailed design and selection of construction methods to minimise canopy loss and in accordance with EPR EC1.</li> <li>3. <u>Ensure</u> arboricultural assessments <del>are to</del> verify existing details and inform the detailed design, Tree Removal Plans and Tree Canopy Replacement Plan (required by EPR AR3<sup>4</sup>) in order to maximise tree retention and long-term viability of amenity plantings in accordance with Australian Standard AS4970:2009 Protection of Trees on Development Sites.</li> <li>4. <u>Inform</u> the Tree Removal Plans <del>must be informed</del> by a pre-construction site assessment <u>in consultation with the relevant land manager and/or local council</u> to confirm the area and number of trees and other vegetation proposed to be impacted. Trees to be retained must be protected in accordance with EPR AR2<sup>3</sup>.</li> </ul>         | Supported   |

| #                            | Environmental Performance Requirement   | Minister’s assessment |
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|                              | <p>5. <u>Ensure</u> tree and vegetation removal <del>is to</del> occurs in a staged manner with removal only occurring once necessary for the current stage of works.</p> <p>6. <u>Describe the reuse opportunities for trees sought to be removed for the Project in the</u> Tree Removal Plans in consultation with local Council and affected land managers. <del>must describe the reuse opportunities to be sought for trees removed for the Project.</del></p> <p>7. <u>Confirm</u> the area and number of trees and other vegetation actually removed <del>is to be confirmed</del> through a post-construction assessment and published on the Project website.</p>   |                       |
| AR <del>2</del> <sup>3</sup> | <p><b>Develop and implement Tree Protection Plans</b></p> <p>1. Develop and implement Tree Protection Plans, as part of the CEMP, in consultation with affected land managers, in accordance with Australian Standard AS4970- 2009 <i>Protection of Trees on Development Sites</i>.</p> <p>2. <u>Provide details of any tree protection actions for</u> the Tree Protection Plans <del>must provide details of any tree protection actions</del> to avoid and minimise impacts of construction or related activities on trees proposed to be retained, so far as reasonably practicable, prior to those works being undertaken.</p> <p>3. <u>Prepare</u> Tree Protection Plans <del>must be prepared</del> based on detailed construction drawings and surveyed tree locations and in accordance with EPR EC2.</p> <p>4. <u>Include protection of the following trees in the</u> Tree Protection Plans <del>must include protection of the following trees:</del></p> <ul style="list-style-type: none"> <li>a) River Red Gum (<i>Eucalyptus camaldulensis</i>) (CH-201739) at 66 Mattheison Street, Cheltenham</li> <li>b) Peppercorn Tree (<i>Shinus molle</i>) (CL-4056) at the existing Clayton Station</li> <li>c) Lone Pine (<i>Pinus halepensis</i>) (CL-2189) at the Clayton Remembrance Gardens</li> </ul> <p>5. <u>Monitor</u> trees subject to protection <del>must be monitored</del> for a 3-year period following completion of construction works in that location to assess ongoing viability, with maintenance or replacement of stressed or damaged specimens to be undertaken in accordance with EPR AR<del>3</del><sup>4</sup>.</p> | Supported             |
| AR <del>3</del> <sup>4</sup> | <p><b>Develop and implement a Tree Canopy Replacement Plan</b></p> <p>1. Develop and implement a Tree Canopy Replacement Plan to replace double the amount of tree canopy cover (m<sup>2</sup>) removed as a result of the Project in each local government area by 2050.</p> <p>2. <u>Ensure</u> the Tree Canopy Replacement Plan <del>must:</del></p> <ul style="list-style-type: none"> <li>a) <del>is</del> <u>Be</u> developed in consultation with councils and other relevant land managers, in accordance with best practice, and in line with the Urban Design Strategy, relevant Urban Design and Landscape Plans, and relevant local government masterplans</li> <li>b) Shows the location, size (including canopy spread modelled to 2050) and species of replacement trees, including locally indigenous species as required by EPR EC1. Replanting of trees must be compliant with AS2303:2018 (Tree Stock for Landscape Use).</li> <li>c) Demonstrates <u>how</u> each station, the Stabling Facility and the Emergency Support Facility will contribute towards their doubling of tree canopy removed</li> <li>d) Specifies requirements to support the long-term viability and growth of all replacement trees including appropriate deep soil requirements, 3-year establishment works, water sensitive urban design where practicable, and ongoing maintenance and protection.</li> </ul>  | Supported.            |

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|  | <p>e) <u>Adopts the following</u> replacement tree planting <del>should adopt the following</del> hierarchy:</p> <ul style="list-style-type: none"> <li>i. Within the Project Land at each station site and at the Stabling Facility and Emergency Support Facility – as first priority, in locations as close as feasible to where trees were removed, prioritising canopy in high pedestrian foot traffic and hard paved areas</li> <li>ii. Outside the Project Land and within a 400 m walking catchment from where trees were removed, <u>having regard to:</u> <ul style="list-style-type: none"> <li><u>Areas with low tree canopy cover coupled with high heat impacts</u></li> <li><u>Areas that are socially vulnerable to heat impacts</u></li> <li><u>Areas where shade is needed to promote pedestrian and cycling activity</u></li> <li><u>Areas within open space, waterways and along streets where biodiversity corridors or habitat links can established.</u></li> </ul> </li> <li>iii. Within Victorian Government and local Council land within the local government area that the trees were removed.</li> </ul> <p>f) <del>Within the Project Land,</del> <u>Includes</u> understorey plantings <u>within the Project Land</u> in addition to the tree canopy replacement plantings where feasible in consultation with councils and/or affected land manager</p> <p>g) Specifies that any planting in accordance with the Tree Canopy Replacement Plan is in addition to any other (non-SRL) planting program.</p> <p>h) Specifies the responsibility for planting and ongoing maintenance and monitoring of trees and understorey planted under the Tree Canopy Replacement Plan in consultation with relevant stakeholders for the 3-year establishment period or timeframe agreed with the landowner, after which time the land owner will maintain the trees.</p> <p>3. <u>Detail how</u> the Tree Canopy Replacement Plan <del>must detail how</del> interim progress towards the doubling of tree canopy cover target is to be monitored, modelled and reported against annually during Project construction, taking into account early plantings outside the Project Land. The Plan must also detail the contingency measures to be implemented if interim reporting shows the targets will not be met.</p> <p>4. <u>Develop a</u> draft Tree Canopy Replacement Plan <del>is to be developed</del> prior to the commencement of works and finalised on completion of relevant approved Urban Design and Landscape Plans.</p> <p>5. <u>Commence</u> the replacement planting of trees <del>must start</del> as soon as possible and in stages once the tree removal extent is confirmed and suitable replacement sites have been determined in consultation with relevant local governments and authorities.</p> <p>6. <u>Conduct modelling and reporting at the</u> completion of the Project <del>modelling and reporting must be conducted</del> to confirm extent of tree removal and that the Tree Canopy Replacement Plan will achieve a doubling of tree canopy cover removed for the Project target. Any shortfall in tree canopy replacement will need to be addressed through additional planting before the EPR can be achieved.</p> <p>7. <u>Provide</u> replacement tree canopy <del>must be provided</del> in accordance with the Tree Canopy Replacement Plan.</p> |                       |
| <b>Business (including retail and education centres)</b> |   |                       |
| B1   | <p><b>Minimise disruption to businesses, <u>including</u> from acquisition</b></p> <p>1. Minimise disruption to businesses, <u>including</u> from land acquisition by working with affected businesses to endeavour to reach agreement on terms of possession in accordance with relevant legislation.</p>  | Supported             |
| B2   | <p><b>Provide support to businesses that are relocating due to acquisition</b></p> <p>1. Implement the measures set out in the SRL Business and Residential Relocation Support Guidelines for all eligible businesses, <u>(unless a business has elected to not seek additional assistance beyond what is provided under the relevant legislation),</u> to provide as a minimum:</p> <ul style="list-style-type: none"> <li>a) Consultation with owners and tenants of commercial properties:</li> </ul>  | Supported             |

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|    | <ul style="list-style-type: none"> <li>i. to enable the implications and options for relocation to be fully understood by all parties; and</li> <li>ii. providing appropriate time to allow the businesses to relocate.</li> </ul> <p>b) Individualised assistance to displaced businesses with their relocation which may include the engagement of professional advisory and marketing services, <a href="#">language, financial, accounting and management assistance as appropriate.</a></p> <p>c) <a href="#">Regular consultation with the relevant Councils at all stages of the process.</a></p> <p>2. <a href="#">Implement</a> measures that support businesses with specific relocation needs <del>must be implemented</del>, such as, but not limited to, medical services, businesses that are part of a supply chain, businesses with regulatory requirements, and businesses where the customer base is location specific.</p>   |                       |
| B3 | <p><b>Prepare and implement a Business Disruption Mitigation Plan</b></p> <ol style="list-style-type: none"> <li>1. Prepare an overarching Business Disruption Mitigation Framework (BDMF) in accordance with the Victorian Small Business Engagement Guidelines (produced by the Victorian Small Business Commission) to outline the approach to manage and mitigate business disruption from the Project to the extent reasonably practicable. The BDMF must address disruption to business access for customers, visitors, suppliers or waste collection and management of amenity impacts on businesses.</li> <li>2. Develop and implement localised Business Disruption Mitigation Plans (BDMP) that comply with the BDMF and the SRL Business Support Guidelines. SRLA will work with the contractors to oversee the implementation of the BDMP and ensure the implementation of business support as outlined in the SRL Business Support Guidelines, with particular emphasis on: <ul style="list-style-type: none"> <li>a) Promotion and marketing to encourage patronage of businesses in proximity of construction sites.</li> <li>b) Targeted or ‘bespoke’ support to highly impacted and disrupted businesses to enable businesses to overcome detrimental effects on business health.</li> <li>c) Ensuring businesses receive adequate notice of construction works and phases, including estimated timeframes/programs.</li> <li>d) <a href="#">Providing access to financial services and/or assistance for relocation</a></li> </ul> </li> <li>3. <a href="#">Include the following in</a> the BDMPs <del>must include</del>: <ul style="list-style-type: none"> <li>a) Measures as far as practicable to ensure construction traffic avoids sensitive commercial areas.</li> <li>b) Details of any changes to traffic and parking conditions and durations of change.</li> <li>c) A Project construction schedule developed in consultation with transport authorities, local councils and affected businesses to minimise cumulative impacts of this and other independent projects.</li> <li>d) A process for notifying customers of proposed changes to business operations such as access, operating hours and amenity, including the settling of suitable timeframes for notification prior to commencement of works that cause the change in business operations.</li> <li>e) Specific measures for supporting affected businesses during construction.</li> <li>f) Consideration of potential requirements for cleaning of streets, public areas, street furniture, commercial premises and shopfronts to mitigate any impacts of construction activities directly caused by the Project.</li> </ul> </li> <li>4. <a href="#">Ensure</a> SRLA and the appointed contractor <del>must</del> work with businesses to minimise impacts to business operations from utility relocation or disruptions and to mitigate the impact or any business disruption.</li> </ol> <p><a href="#">NOTE:</a> the measures set out in the overarching BDMF and location-specific BDMP are in addition to the implementation of noise, vibration, EMI, air quality, urban design, traffic and social impact related EPRs.</p> | Supported             |
| B4 | <p><b>Undertake proactive business engagement</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement a tailored and proactive approach to engaging with trader associations and businesses affected by construction, as part of the communications and stakeholder engagement plan developed for EPR SC2. This approach must include:</li> </ol>   | Supported             |

Appendix A - Suburban Rail Loop East – Minister’s assessment under Environment Effects Act 1978

| #  | Environmental Performance Requirement  | Minister’s assessment   |
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|    | <ul style="list-style-type: none"> <li>a) Regular and timely reporting of design and construction activities and key projects timelines</li> <li>b) Provision of adequate and advance notice about changes to traffic and parking conditions and duration of impact.</li> <li>c) Timely provision of relevant information, including responses to issues raised by the group.</li> <li>d) Regular reporting and monitoring of business community feedback, impacts and discussion of mitigation measures and their effectiveness.</li> <li>e) Measures to effectively engage with Culturally and Linguistically Diverse (CALD) business operators and owners.</li> <li>f) <a href="#">Surveys to assess annual impacts on businesses, including stakeholders such as customers and visitors to a centre.</a></li> </ul> <p>2. <a href="#">Ensure each of the Clayton, Glen Waverley and Box Hill centres has a dedicated Business Liaison Manager (or similar) to enable continuity and access to advice as appropriate.</a></p>   |   |
| B5 | <p><b>Provide effective replacement of car parking spaces in Glen Waverley</b></p> <ul style="list-style-type: none"> <li>1. <a href="#">Replace</a> the car parking spaces lost due to the Project in the Glendale Street carparks and nearby on-street parking <a href="#">in consultation with the City of Monash and</a> to provide continued support to traders and visitors within the Glen Waverley Activity Centre.</li> <li>2. <a href="#">Provide</a> the replacement car parking <del>must be provided</del> within the Glen Waverley <del>Metropolitan</del> Activity Centre <a href="#">in a location that minimises traffic impacts on Kingsway between Coleman Parade and Bogong Avenue</a> and <del>must provides</del> <a href="#">has</a> convenient access to Kingsway south of Coleman Parade..</li> </ul>   | Supported   |
| B6 | <p><b>Develop and implement a strategy to support businesses displaced due to acquisition in Box Hill</b></p> <ul style="list-style-type: none"> <li>1. Develop and implement a strategy to support the businesses that are displaced from Box Hill due to acquisition and assess options for how they can be retained in the Box Hill Metropolitan Activity Centre. The strategy is to be informed by consultation with the business to be displaced by the Project, and Whitehorse City Council.</li> <li>2. Ensure the strategy <del>should</del> includes consideration of major redevelopment proposals in proximity to the SRL Station at Box Hill.</li> <li>3. <a href="#">Ensure</a> the strategy <del>should</del> has regard to the established cultural attributes of the Box Hill MAC and the maintenance of the cultural life of the centre during the construction period of the Project.</li> </ul>   | Supported   |
| B7 | <p><b>Support businesses with sensitive equipment in operation</b></p> <ul style="list-style-type: none"> <li>1. Support continuity of existing businesses with sensitive equipment potentially affected during operation of the Project.</li> </ul>   | Supported   |
| B8 | <p><b><a href="#">Develop a voluntary business and commercial acquisition plan</a></b></p> <p><a href="#">Prepare a plan that provides the opportunity for voluntary acquisition of business or commercial property, should relevant guidelines within the plan be met.</a></p>  | Supported in principle with amendments to include guidance about eligibility for voluntary acquisition. |
| B9 | <p><b><a href="#">Develop an Employee Assistance Strategy</a></b></p> <ul style="list-style-type: none"> <li>1. <a href="#">Develop and implement an Employee Assistance Strategy to provide relevant workforce support measures for employees of businesses closing or relocating as a consequence of acquisition for the Project.</a></li> <li>2. <a href="#">Ensure the strategy includes, but is not limited to:</a> <ul style="list-style-type: none"> <li>a) <a href="#">The identification of affected businesses and employees</a></li> <li>b) <a href="#">Provide a co-ordinated link to support services for affected employees (for example, access to a range of services such as training advice, careers advice, resume workshopping, advice on government entitlements, referral to other job support services, and skills assessments).</a></li> <li>c) <a href="#">The identification of relevant government agencies and support services</a></li> <li>d) <a href="#">Procedures to disseminate information regarding the employee assistance strategy and services, key project milestones that may impact on business closures and relocations, and other changes that may affect businesses and their employees during the closure of existing operations.</a></li> </ul> </li> </ul> | Supported   |



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|                          | <p>3. <a href="#">Prepare and implement, in parallel with the Employee Assistance Strategy, and with appropriate expert advice, a package of individual employee assistance plans prepared with and for each employee who requests it, in consultation with the employer, that:</a></p> <ul style="list-style-type: none"> <li>a) <a href="#">Understands at a fine-grained level their future employment plans</a></li> <li>b) <a href="#">Need for training and development</a></li> <li>c) <a href="#">Factors that would influence their desire to remain employed with a business in the relevant activity centre</a></li> <li>d) <a href="#">Practical and reasonable assistance to implement their assistance plan.</a></li> </ul>  |                       |
| <b>Contaminated Land</b> |  |                       |
| C1                       | <p><b>Environmental investigation, monitoring and reporting</b></p> <p>1. Undertake additional investigations to ensure that all baseline conditions are identified and recorded to address the specific data gaps identified in Section 10 of Technical Appendix F.2 to the exhibited SRL East EES and to inform the detailed design or for environmental monitoring during the construction phase. The additional investigations must include the preparation of the following documents:</p> <ul style="list-style-type: none"> <li>a) Sampling workplans (including sample analysis quality plans (<a href="#">SAQP</a>)) as set out in the NEPC 2013 National Environmental Protection (Assessment of Site Contamination) Measure 1999 (amended 2013) and subordinate legislation and standards for each project component</li> <li>b) Investigation reports (including soil, groundwater and acid sulfate/rocks) in accordance with applicable Commonwealth and Victorian legislation detailing the assessment of specific data gaps to demonstrate that the extent of contamination for each study area has been adequately characterised</li> <li>c) Establish and document baseline contamination levels for stockpile areas to inform the Spoil Management Plan under EPR C3</li> <li>d) Routine monitoring reports.</li> </ul>  | Supported             |
| C2                       | <p><b>Develop and implement a Contaminated Land Management Plan</b></p> <p>1. Develop and implement a Contaminated Land Management Plan (CLMP) in consultation with the EPA and other key stakeholders (where appropriate) in accordance with the EP Act and subordinate legislation, as set out in EPA Victoria guidance documents on assessing and managing contaminated land (Assessing and controlling contaminated land risks (EPA Publication 1977), Proposed methodology for deriving background level concentration when assessing potentially contaminated land (EPA Publication 1936), Civil construction, building and demolition guide (EPA Publication 1834) and Construction – guide to preventing harm to people and the environment (EPA Publication 1820.1), <a href="#">Guide to the environment reference standard (EPA Publication 1992)</a> (as amended or replaced from time to time)) and best practice guidance National Environmental Protection (Assessment of Site Contamination) Measure 1999 (amended 2013).</p> <p>2. <del>The CLMP must</del> Include (but <del>is</del>-not be limited to) the following <a href="#">in the CLMP</a>:</p> <ul style="list-style-type: none"> <li>a) Summary of applicable regulatory requirements</li> <li>b) Description of roles, responsibilities and record keeping requirements</li> <li>c) A program for the updating of the CLMP for different stages of construction through to completion</li> <li>d) Measures and work methods for excavation and piling works for the management of odorous soils (EPR AQ1) and groundwater to prevent contaminant plume movement towards sensitive receptors (refer to EPR GW1 and EPR GW3) so far as reasonably practicable</li> <li>e) Measures for the management of contaminated land so far as reasonably practicable</li> <li>f) Details of any further characterisation of the land (including groundwater) to be disturbed or impacted by the works including the development of a <del>Sample Analysis Quality Plan (SAQP)</del>, conceptual site models and risk-based interpretation of the data (as required by EPR C1)</li> </ul> | Supported             |

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|    | <p>g) Identification of issues and appropriate management measures for residual risks of construction spoil that will become a waste and require management through construction (EPA Publication 1834)</p> <p>h) If unacceptable residual risks are identified or as required for re-use of spoil (EPR C3), prepare a remedial options assessment (ROA) and further, if required, prepare and implement a Remedial Action Plan (RAP) and remedial designs</p> <p>i) Measures to prevent contamination of areas used for temporary construction works and to remediate any contamination caused by temporary construction activities in consultation with the relevant land manager</p> <p>j) Contingency and Unexpected Finds Plan (<a href="#">CUFP</a>) in relation to contaminated land including the identification of responsibilities, training, staff induction, typical unexpected finds and responses, notification(s), and reporting requirements.</p> <p>k) Establishment of a process for two-way communication between the contractor and stakeholders to facilitate sharing of information and data about contaminated land, groundwater or ground gas related issues which may arise. The process should include a clear point of contact through which third-parties can raise issues and concerns, or request information and data.</p> <p>l) Establishment of a process to mediate disputes or disagreements</p> <p>3. The CLMP must be verified by the IEA.</p>  |   |
| C3 | <p><b>Develop and implement a Spoil Management Plan</b></p> <p>1. Develop and implement a Spoil Management Plan (SMP) in consultation with the EPA Victoria and other key stakeholders (where appropriate) in accordance with SRLA’s Spoil Management Strategy (Appendix C of the Contamination Assessment Technical Report or as amended and verified by the IEA), the EP Act and subordinate legislation, and EPA Publications Civil construction, building, and demolition guide (EPA Publication 1834) and Construction – guide to preventing harm to people and the environment (EPA Publication 1820.1) (as amended or replaced from time to time), <a href="#">subject to</a>:</p> <p>a) <a href="#">EPA review and formal acceptance of an updated Spoil Management Strategy, which has been suitably peer-reviewed.</a></p> <p>b) <a href="#">EPA review and formal acceptance of the Spoil Management Framework and all project SMPs.</a></p> <p>2. <del>Transport offsite for treatment, reuse and disposal any</del> <del>Where</del> <del>spoil that is</del> generated by the project that cannot be reused on site, <del>it must be transported offsite</del>. If temporary storage is proposed for more than 30 days, an environmental risk assessment must be undertaken to determine if storage is safe, or the spoil needs to be transported offsite.</p> <p><a href="#">Do not consider temporary spoil storage for gasworks-derived waste fill, classed as Prescribed Waste, excavated from the SRL Cheltenham Station site, nor shall such Prescribed Waste (gasworks-derived waste fill) be placed at other project sites.</a></p> <p>3. <del>Address the SMP must address</del> the management of all spoil to maximise reuse as far as reasonably practicable <del>in the SMP</del>. <del>The SMP must</del> <del>and</del> include processes and measures to manage spoil generated through construction and transportation offsite to a lawful place. The SMP must include but is not limited to:</p> <p>a) Summary of applicable regulatory requirements</p> <p>b) Description of roles and responsibilities</p> <p>c) A program for the updating of the SMP for different stages of construction through to completion with the updates relating to construction activities still to be completed</p> <p>d) Description of the approach to site investigation to characterise the spoil (such as Fill Material, industrial waste, reportable priority waste and waste acid sulfate soil) if required, including the development of a <del>sample analysis quality plan (SAQP)</del> as per EPR C1</p> <p>e) Develop conceptual site models and waste categorisation to meet EPA Victoria requirements to classify spoil for disposal or re-use as required</p> <p>f) Details of reuse options for all categories of spoil expected to be generated through construction</p> | <p>Supported in principle with amendments in line with my assessment.</p> <p>Amend C3 item 1 b) to remove reference to a Spoil Management Framework (which was not contemplated in the EES or the Spoil Management Strategy).</p> |

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|    | <ul style="list-style-type: none"> <li>g) Details of management measures to be implemented for sustainable handling and transport of spoil for the protection of human health and the environment</li> <li>h) Details of design and specific environmental management plans (EMPs) for temporary stockpile areas and stockpile activities including but not limited to containment of stockpiled materials to prevent any impact to human health or the environment. The EMPs for temporary stockpile areas should also include a project closure report indicating the site has been appropriately managed and restored to its pre-existing contamination baseline, so far as reasonably practicable.</li> <li>i) Details of appropriate lawful places (including offsite reuse and disposal facilities) for the receipt of waste and identify any permissions required in accordance with the <i>Environment Protection Regulations 2021</i></li> <li>j) Description of sampling approach in accordance with <i>Soil sampling</i> (EPA Publication IWRG702)</li> <li>k) Description of the approach to determine the waste categories in accordance with <i>Waste disposal categories – characteristics and thresholds</i> (EPA publication 1828.2) (as amended or replaced from time to time)</li> <li>l) Details of monitoring and reporting requirements</li> <li>m) Consideration of cumulative effects of waste spoil disposal from other Major Transport Infrastructure Projects</li> <li>n) <del>Contingency and Unexpected Finds Plan</del> <a href="#">CUFP</a> in relation to spoil, including the identification of responsibilities, training, staff induction, typical unexpected finds and responses, notification(s), and reporting requirements.</li> </ul>   |                       |
| C4 | <p><b>Develop and implement a Hazardous Ground Gases Management Plan</b></p> <ul style="list-style-type: none"> <li>1. Develop and implement a Hazardous Ground Gases Management Plan (HGGMP) in consultation with the EPA and other key stakeholders (where appropriate) and in accordance with the EP Act and subordinate legislation, EPA Publication 1684: Landfill Gas Fugitive Emissions Monitoring Guideline and best practice guidance.</li> <li>2. <a href="#">Ensure the HGGMP addresses</a> the potential impacts so far as reasonably practicable at the Stabling Facility and other components of the Project where ground gas impacts could be realised, <del>and shall</del> <a href="#">including</a> but <del>is</del> not limited to: <ul style="list-style-type: none"> <li>a) Summary of applicable regulatory requirements</li> <li>b) Description of roles and responsibilities</li> <li>c) A program for the updating of the HGGMP for different stages of construction through to completion</li> <li>d) Description of the approach to investigate ground gas emissions at the Stabling Facility on the footprint of planned occupied buildings or, if a surcharging ground improvement option is a planned, across the impacted area including near sensitive receptors in order to assess risks from ground gas emissions</li> <li>e) <del>If required,</del> <a href="#">The</a> design and installation (<a href="#">if required</a>) of appropriate gas mitigation measures including relevant construction quality assurance requirements to manage potential impacts so far as reasonably practicable and with reference to <i>Landfill gas fugitive emissions monitoring guideline</i> (EPA Publication 1684) and the British Standard BS 8485: 2015+ A1:2019: Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings. This work must be prepared by a suitable technically qualified person and verified by the IEA by an Auditor with expertise in landfill gas migration and mitigation measures.<br/><br/><a href="#">For any produced emissions from future LFG control/mitigation systems, final point sources from such gas capture and treatment systems must treat air emissions in accordance with EPA Publication 788.3 'Siting, design, operation and rehabilitation of landfills' (i.e., the Landfill 'BPEM'), August 2015 (or other versions as updated).</a></li> <li>f) <del>Contingency and Unexpected Finds Plan</del> <a href="#">CUFP</a> in relation to hazardous gases, including the identification of responsibilities, training, staff induction, typical unexpected finds and responses, notification(s), and reporting requirements. The plan will include, as a minimum, site-specific landfill gas risk assessments for unexpected landfills on or in the vicinity of the alignment in accordance with BS8485:2015+A1:2019 Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings.</li> </ul> </li> </ul> | Supported             |

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|                | <p>g) Description of the approach to investigate landfill gas emissions at any other landfill along or within the vicinity of the alignment which may become apparent prior to construction.</p> <p>h) Verification by the IEA.</p>   |   |
| C5             | <p><b>Manage contamination risks during operation</b></p> <p>1. <del>As part of the Operational Environmental Management Plan (OEMP) under EPR EMF2.</del> Develop and implement measures for the monitoring and management of contaminated land and constructed or installed hazardous ground gas management systems <u>as part of the Operational Environmental Management Plan (OEMP) under EPR EMF2.</u></p>  | Supported   |
| C6             | <p><b>Develop and implement a Potential Acid Sulfate Soil and Rock Management Plan</b></p> <p>1. Develop and implement a Potential Acid Sulfate Soil and Rock (ASS/ASR) Management Plan in consultation with EPA and other key stakeholders, in accordance with the Victorian Best Practice Guidelines for Assessing and Managing Coastal Acid Sulfate Soils (VIC BPMG), National Acid Sulfate Soils Guidance, the EP Act and subordinate legislation. This plan should also consider and be consistent with requirements outlined in Section EM 7.3.1 Table EM 7.1 EPR GW3. This plan should include the following:</p> <p>a) Identify locations and extent of any potential ASS/ASR that could be disturbed or otherwise affected by works, including site specific information for areas at risk</p> <p>b) Details of monitoring and reporting requirements</p> <p>c) Characterise ASS/ASR spoil prior to excavation</p> <p>d) Identify and implement measures to prevent oxidisation of ASS/ASR wherever possible</p> <p>e) Identify suitable sites for re-use, management, or disposal of any ASS/ASR with regards to sensitive receptors (wetlands, waterways, and residential areas)</p> | Supported   |
| C7             | <p><b><u>Implement Suitable Air Cover and Treatment Controls – SRL Cheltenham station</u></b></p> <p>1. <u>Conduct excavation and removal under suitable air cover controls for station box bulk excavation of former gasworks waste fill, expected within the top 4 to 5 metres to actively intercept released odours or dust, with associated end-point treatment of collected air from this covered air space, to remove dust, organics in air and odours. For placement of deep diaphragm support walls for the station box, such excavation through the waste fill may occur, prior to any air cover controls being required (provided the exposed excavation is restricted to the active diaphragm wall construction work area).</u></p>  | Supported subject to minor amendments (amend to state ‘odours and dust’).   |
| C8             | <p><b><u>Human Health Risk Assessment – Stabling Facility</u></b></p> <p>1. <u>Complete a quantitative Human Health Risk Assessment (HHRA) prior to the construction of the Stabling Facility and the final selection of risk mitigation measures, including:</u></p> <p>a) <u>inputs from all the site contamination and spoil investigations as available for the Stabling Facility</u></p> <p>b) <u>revised dust exposure modelling for the construction period (including allowance for any proposed soil surcharge piles)</u></p> <p>c) <u>dust exposure measurement (baselining) appraisal for the local area, with inputs from this into dust modelling</u></p> <p>d) <u>specific consideration of local health baselines for the residential population to dust and fume emissions.</u></p> <p>2. <u>The HHRA is to be reviewed and approved by a suitably qualified and experienced human health risk assessment professional (for example, from EPA’s Applied Science Unit).</u></p>  | Supported in principle with amendments in line with my assessment.<br><br>Amend C8 item 1 d) to require incorporation of local health baseline data to the extent practicable and C8 item 2 to require the risk assessment to be developed in consultation with and to the satisfaction of the EPA. |
| <b>Ecology</b> |   |   |
| EC1            | <p><b>Minimise vegetation and habitat removal and disturbance</b></p> <p>1. Develop and implement measures to avoid and otherwise minimise to the extent practicable impacts on native vegetation and fauna habitat (including trees) through detailed design and construction, including:</p> <p>a) Ensure all trees are retained and protected within the Henry Street Reserve and Kingston Walk Linear Reserve, with the exception of select tree removals (if required) as part of the enhancement and landscaping activities.</p>  | Supported   |

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|     | <ul style="list-style-type: none"> <li>b) Minimise footprint and surface disturbance to areas of revegetation along Gardiners Creek.</li> <li>c) Ensure that at the Monash SRL site, <del>minimises</del> the impact of the Project on trees along the south side of Normanby Road and Scenic Boulevard <u>is minimised</u>.</li> <li>d) Maximise retention of mature trees, planted and remnant native trees and remnant vegetation, particularly large amenity trees (greater than 30 cm DBH) that contribute to faunal habitat in accordance with AR<del>4</del><u>2</u> and AR<del>2</del><u>3</u>.</li> <li>e) Maximise retention of fauna habitat including standing dead hollow trees and understorey vegetation.</li> </ul> <p>2. <u>Carry out a</u> pre-construction site assessment <del>must be carried out in consultation with the relevant land manager and/or Council</del> to inform detailed design and to confirm the area and number of trees and other vegetation proposed to be impacted. Area and number of trees and other vegetation actually removed is to be confirmed through a post-construction assessment.</p> <p>3. <u>Ensure that</u> where appropriate for the landscape and Project location, tree replacement (as required by EPR AR<del>34</del><u>34</u>–Arboriculture) and landscaping <del>is to</del> uses locally indigenous species, suited to the landscape profile and the setting being revegetated, <del>and seek</del> to maximise habitat value and connectivity for native fauna. This would include requirements to support the long- term viability and growth of all plantings of indigenous species including appropriate soil conditions, establishment works and ongoing maintenance and protection in consultation with Councils.</p> |                       |
| EC2 | <p><b>Implement vegetation protection measures</b></p> <ul style="list-style-type: none"> <li>1. <del>must</del> Include sub-management plan(s) in <u>the Construction Environmental Management Plan (CEMP)</u> that sets out the requirements and methods for: <ul style="list-style-type: none"> <li>a) Identification of areas of important flora and fauna habitat to be protected during construction.</li> <li>b) Fencing protected areas and no go zones to prevent access during construction – fencing should be to a standard agreed with the relevant land manager.</li> <li>c) Pre-construction site assessment to confirm that vegetation and trees to be retained have been adequately protected from impact.</li> <li>d) Vegetation clearing controls and protection measures.</li> <li>e) Development and implementation of a Tree Protection Plan as per AR<del>2</del><u>3</u>.</li> <li>f) Implementation of appropriate measures to manage the risk of the spread and introduction of pest animals, weeds and pathogens during construction.</li> <li>g) Procedures if unexpected threatened species are identified.</li> </ul> </li> </ul>   | Supported             |
| EC3 | <p><b>Obtain native vegetation offsets</b></p> <ul style="list-style-type: none"> <li>1. <del>Where native vegetation removal is not avoidable,</del> Provide offsets <u>for unavoidable removal of native vegetation</u> in accordance with the <i>Guidelines for the removal, destruction or lopping of native vegetation</i> (DELWP, 2017) prior to removal, except as otherwise agreed by the DELWP Secretary.</li> </ul>   | Supported             |
| EC4 | <p><b>Implement fauna management measures to minimise impacts to fauna</b></p> <ul style="list-style-type: none"> <li>1. <del>The CEMP, including any sub-management plans, must</del> Include requirements and methods in <u>the CEMP, including any sub-management plans:</u> <ul style="list-style-type: none"> <li>a) for undertaking pre-clearing inspections to confirm the on-site location of fauna immediately prior to habitat removal;</li> <li>b) for managing native fauna that may be displaced due to habitat removal, in compliance with the Wildlife Act 1975 and in consultation with public land managers where relevant.</li> </ul> </li> <li>2. Design and install construction and operational lighting with regard to Appendix A of the <i>National Light Pollution Guidelines for Wildlife</i>, (DAWE, 2020) to manage and minimise off-site amenity effects, including lighting location details and demonstrated minimisation of light spill to areas of fauna habitat including: <ul style="list-style-type: none"> <li>a) Gardiners Creek</li> <li>b) Kingston Walk Linear Reserve</li> <li>c) Henry Street Linear Reserve</li> </ul> </li> </ul>   | Supported             |

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|                                     | <p>d) Jock Marshall Reserve</p> <p>e) Northern and western section of Sir William Fry Reserve.</p> <p>3. <del>Where appropriate</del>, Design, install and manage revegetation surrounding waterbodies at the Stabling Facility (<a href="#">having regard to Appendix A of the National Light Pollution Guidelines for Wildlife</a>) to provide habitat for a diversity of indigenous birds and discourage large flocks of Silver Gulls (<i>Chroicocephalus novaehollandiae</i>) from congregating.</p>  |   |
| EC5                                 | <p><b>Gardiners Creek naturalisation is to be undertaken to improve habitat values</b></p> <p>1. Develop and implement a plan in consultation with Melbourne Water, the local council and other relevant authorities to naturalise the section of Gardiners Creek adjacent to SRL station at Burwood to improve habitat values within and surrounding the Gardiners Creek for indigenous fauna species. This would consider appropriate revegetation with both aquatic and terrestrial indigenous flora species, installation of appropriate instream habitat and waterway design to promote appropriate flow conditions.</p> <p>2. <del>This plan would be</del> <a href="#">incorporate the Plan</a> into the management plan required by EPR SW8 for the naturalisation of Gardiners Creek. The management plan must contain requirements and methods to minimise, to the extent practicable, short and long-term impacts on riparian, riverbed and aquatic habitat to Gardiners Creek downstream of the construction activity required to naturalise the creek.</p>   | Supported   |
| <b>Electromagnetic interference</b> |   |   |
| EMI1<br>A                           | <p><b>Process Statements</b></p> <p>1. <del>EMI1-EMI3</del> Apply <a href="#">EMI1-EMI3</a> to EMI-sensitive receivers as follows:</p> <p>a) For receivers within Monash University Clayton Campus, only Building 220 (Monash Biomedical Imaging Building) and Building 23 (Senior Chemistry Building); and</p> <p>b) For receivers outside Monash University Clayton Campus, at all times except where a Process Statement agreed between SRLA and the owner or operator of the sensitive receiver, in which case the terms of the Process Statement prevail.</p> <p><u>NOTE:</u> For the purposes of these EPRs, a “Process Statement” means an agreement between SRLA and the relevant stakeholder addressing specific EMI requirements for a particular sensitive receiver or receivers.</p>  | Supported in principle subject to comments in section 5.2 of my assessment. |
| EMI1                                | <p><b>Develop an Electromagnetic Compatibility (EMC) Management Plan</b></p> <p>1. Develop an Electromagnetic Compatibility (EMC) Management Plan in accordance with AS/RISSB7722:2016 <i>EMC Management</i> to inform the design and construction of SRL East (EMC Management Plan), that includes (but is not necessarily limited to) the following:</p> <p>a) A preliminary assessment of electromagnetic emissions or disturbances likely to be caused by the construction and operation of SRL East and the Ultimate Configuration, having regard to:</p> <ul style="list-style-type: none"> <li>i. Relevant design requirements of SRL East and the Ultimate Configuration;</li> <li>ii. Any matters relevant to electromagnetic emissions or disturbances which SRLA reasonably expects will be implemented in the design, construction and operation of SRL East and the Ultimate Configuration.</li> </ul> <p>b) Identification of existing and known and committed future equipment or infrastructure which may be affected by electromagnetic interference (EMI) as a result of the construction or operation of SRL East and the Ultimate Configuration (“sensitive receivers”), having regard to the preliminary assessment carried out pursuant to paragraph (a) above.</p> <p>c) Determination of operational EMI immunity limits for sensitive receivers identified pursuant to paragraph (b) above, having regard to:</p> <ul style="list-style-type: none"> <li>i. equipment environmental specifications;</li> <li>ii. stakeholder requirements;</li> <li>iii. background EMI levels; and</li> <li>iv. where existing shielding or mitigations are installed.</li> </ul> | Supported   |

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|      | <p>For the purposes of sub-paragraph (i), equipment environmental specifications are either:</p> <ol style="list-style-type: none"> <li>1) the equipment manufacturer environmental specifications; or</li> <li>2) other environmental specifications substantiated by appropriate data and evidence provided by the owner of the equipment, collected by SRLA where it considers appropriate, or a combination of both.</li> </ol> <p>Note: Any dispute regarding the appropriateness of the environmental specifications must be determined by an appropriately qualified independent expert, engaged by SRLA, on the basis of all data, evidence and information held or collected by SRLA regarding the relevant sensitive receiver.</p> <ol style="list-style-type: none"> <li>d) A process for baseline monitoring to identify background EMI levels at sensitive receivers identified pursuant to paragraph (b) above, undertaken in accordance with any relevant manufacturer environmental test requirements where available and in consultation with the equipment owner, or, where reasonable and timely access is not provided for the purpose of monitoring, in accordance with an alternative procedure suitable to determine background EMI levels at the relevant sensitive receiver.</li> <li>e) Targeted modelling to confirm whether electromagnetic emissions or disturbances caused by the construction and operation of SRL East and the Ultimate Configuration comply with the operational EMI immunity limits determined in accordance with paragraph (d) above. If the targeted modelling identifies any exceedance as a result of the construction or operation of SRL East or the Ultimate Configuration, design additional or optimised management measures and/or at-source mitigation measures to be implemented in the design, construction and operation of SRL East:             <ol style="list-style-type: none"> <li>i. to avoid the exceedance where reasonably practicable; or</li> <li>ii. if it is not reasonably practicable to avoid exceedance, to reduce the exceedance so far as reasonably practicable.</li> </ol> </li> <li>f) Targeted modelling to confirm whether, with the additional management measures and/or at-source mitigation measures designed pursuant to paragraph (e) above in place, electromagnetic emissions or disturbances caused by the construction and operation of SRL East comply with the relevant operational EMI immunity limits. If the targeted modelling identifies any exceedance as a result of the construction or operation of SRL East, design at-receiver mitigation measures in consultation with the owner and manufacturer of the sensitive receiver to avoid exceedance of the operational EMI immunity limit, to be implemented subject to the agreement of the owner of the sensitive receiver.</li> <li>g) A program for regular monitoring of EMI levels at sensitive receivers identified pursuant to paragraph (b) during the construction, testing, and commissioning of SRL East.</li> <li>h) A procedure for the review and updating of the EMC Management Plan having regard to the outcomes of monitoring and, where relevant, any data or evidence provided by stakeholders in respect of electromagnetic emissions or disturbances caused by the construction and operation of SRL East, including to provide for the design of additional or optimised management measures, at-source mitigation measures, and/or at-receiver measures in accordance with paragraphs (e) and (f) above if operational EMI immunity limits determined in accordance with paragraph (d) are not met during the construction, testing and commissioning of SRL East.</li> </ol> <p><b>NOTE:</b> For the purposes of this EPR, ‘known and committed future developments or infrastructure’ is any future development or infrastructure for which it can be demonstrated that the stakeholder had a formal commitment or plan at the time of the Minister for Planning’s assessment of the SRL East EES.</p> |                       |
| EMI2 | <p><b>Design and construct SRL East in accordance with the Electromagnetic Compatibility Management Plan</b></p> <ol style="list-style-type: none"> <li>1. Design and construct SRL East in accordance with the EMC Management Plan, including through:             <ol style="list-style-type: none"> <li>a) Incorporating the at-source mitigation measures identified in the EMC Management Plan, or other reasonably practicable measures of equal or better performance having regard to the operational EMI immunity limits identified in the EMC Management Plan, into the design of SRL East;</li> <li>b) Implementing the at-receiver mitigation measures identified in the EMC Management Plan, or other measures of equal or better performance having</li> </ol> </li> </ol>   | Supported             |

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|                        | <p>regard to the relevant operational EMI immunity limit identified in the EMC Management Plan, subject to the agreement of the owner of the sensitive receiver;</p> <p>c) Conducting monitoring in accordance with the EMC Management Plan.</p>   |   |
| EMI3                   | <p><b>Manage and monitor EMI levels during operation</b></p> <p>1. Develop and implement an EMI Operational Plan for operational activities that addresses the following:</p> <p>a) Maintaining SRL-wide EMI control based on the EMC Management Plan prepared in response to EPR EMI1, considering the operational EMI immunity limits and management and mitigation measures identified in the EMC Management Plan;</p> <p>b) A testing and monitoring strategy, with testing and monitoring to be undertaken during operation to monitor performance of the management and mitigation measures identified in the EMC Management Plan;</p> <p>c) Remedial action to be undertaken if operational EMI immunity limits identified in the EMC Management Plan are not met during the operation of SRL East;</p> <p>d) Providing EMI and electromagnetic field (EMF) data from SRL East to stakeholders who are in the process of planning new sensitive receivers and had no formal commitment prior to the Minister’s assessment of the SRL East EES, to inform the design and required mitigation of new sensitive receivers and associated facilities, if required.</p>  | Supported   |
| <b>Ground movement</b> |  |   |
| GM1                    | <p><b>Develop, maintain and update geological and groundwater models, predict ground movements, and determine acceptability criteria.</b></p> <p>1. To inform the design of tunnels, cross passages, shafts, stations, and portals:</p> <p>a) Develop and maintain geological and groundwater models (as per EPR GW2) which:</p> <p>i. Inform tunnel design and the construction techniques to be applied for the various geological and groundwater conditions</p> <p>ii. Inform assessment of potential ground movement from excavation</p> <p>iii. Inform assessment of potential ground movement from changes in the groundwater levels</p> <p>iv. <a href="#">Are reviewed as the ground conditions are further exposed by investigations and the excavation works, and revised if needed</a></p> <p>b) Identify the structures (including residences and other buildings), utilities and public infrastructure assets (referred to collectively as ‘assets’ in EPR GM1-GM4) that might be affected by ground movement predicted from the models, and establish their structural forms</p> <p>c) Predict ground movements during construction and when post-construction effects would stabilise to determine potential impacts on affected assets</p> <p>2. Determine appropriate acceptability criteria in consultation with relevant stakeholders, local councils, and land managers, and which build upon the assumptions for criteria presented in the EES.</p> <p>3. Develop impact assessment processes and acceptability criteria generally consistent with the <i>Tunnel Design Guideline</i> (Australian Tunnelling Society / Engineers Australia, September 2020).</p> <p>4. Undertake stakeholder engagement activities in accordance with the Community and Stakeholder Engagement Plan required by EPR SC2.</p> | <p>Supported in principle subject to subject to minor amendments to improve legibility and expression.</p> <p>(move item 1 a) iv to a new item 1 d)</p> <p>Reword it for clarity and to include review against monitoring data.</p> |
| GM2                    | <p><b>Measure seasonal ground movements and conduct condition surveys</b></p> <p>1. Conduct ground movement measurements or obtain records of ground movement over a sufficient period of at least four seasons (one year) before construction to establish any background level changes, including seasonal effects.</p> <p>2. Undertake, subject to receiving asset owner consent to undertake the survey, on reasonable terms, pre-construction and post-construction condition survey(s) for the assets predicted to be affected by ground movement based on the results of EPR GM1, or where an asset owner reasonably expects to be potentially affected and has requested a pre-excavation condition survey.</p>  | Supported in principle subject to the addition of a requirement for the database to include a list of all identified assets that may be susceptible to damage from project-related ground movement (not just those surveyed).       |



Appendix A - Suburban Rail Loop East – Minister’s assessment under Environment Effects Act 1978

| #                  | Environmental Performance Requirement   | Minister’s assessment   |
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|                    | <ol style="list-style-type: none"> <li>3. Develop and maintain a data base of condition information for each surveyed asset.</li> <li>4. <a href="#">Share</a> pre-excavation and post-construction condition assessments and records of consultation <del>must be shared</del> with the asset owners.</li> </ol>   |   |
| GM3                | <p><b>Develop, implement and maintain Ground Movement Plans</b></p> <ol style="list-style-type: none"> <li>1. Design and construct permanent structures and temporary ground support measures to limit ground movements to within the acceptability criteria during and after the construction phase.</li> <li>2. Develop and implement a Ground Movement Plan(s) that:               <ol style="list-style-type: none"> <li>a) Addresses the location of assets which may be susceptible to damage by ground movement resulting from Project works, having particular regard to heritage places (EPR HH4)</li> <li>b) Identifies appropriate ground movement impact acceptability criteria for assets, including for buildings, utilities, rail tracks for trains and trams, and road pavement, after consultation with the various stakeholders (EPR GM1)</li> <li>c) Identifies mitigation measures to ensure acceptability criteria can be met (this EPR GM3)</li> <li>d) Identifies techniques for limiting settlement of buildings and protecting buildings from damage. Where these may apply to heritage places, they should be developed in consultation with Heritage Victoria and the relevant local council (as applicable) (EPR GM1)</li> <li>e) Addresses additional measures to be adopted if acceptability criteria are not met, such as repair of any damage (EPR GM4)</li> <li>f) Establishes ground movement monitoring requirements and duration for the area surrounding proposed Project works and at the location of affected assets to measure consistency with the predicted model, including criteria related to predicted movements and acceptable movements</li> <li>g) Includes planned mitigation measures where monitoring results indicate that predetermined ground movement trigger levels could be breached</li> </ol> </li> </ol> | Supported in principle subject to the inclusion of landfills in the list of assets requiring appropriate impact acceptability criteria. |
| GM4                | <p><b>Undertake repair works to assets impacted by ground movement</b></p> <ol style="list-style-type: none"> <li>1. <del>For assets (including natural landscapes and parklands) impacted by ground movement as a result of the Project,</del> Undertake any required repair works or other actions as agreed with the landowner, land manager or asset manager <a href="#">for assets (including natural landscapes and parklands) impacted by ground movement as a result of the Project</a>. For places on the VHR, consultation with Heritage Victoria and the relevant local council must occur (as applicable). For places with a Heritage Overlay, consultation with the relevant Council must occur.</li> <li>2. <a href="#">Undertake</a> any required repair works <del>should be undertaken</del> as soon as reasonably practicable after the completion of Project construction work that could affect the assets and once monitoring shows any ground movement has stabilised.</li> <li>3. Establish an independent mediation process for the assessment of claims relating to damage from ground movement to operate up to three years after tunneling and the construction of the permanent linings of SRL structures that potentially affect the relevant asset.</li> </ol>  | Supported   |
| <b>Groundwater</b> |   |   |
| GW1                | <p><b>Design underground structures to minimise groundwater changes</b></p> <ol style="list-style-type: none"> <li>1. Design underground structures to minimise changes to groundwater levels during construction and operation, in order to avoid and minimise impacts on receptors (existing bores and ecosystems), ground movement, <a href="#">potential acid sulfate soils (PASS)</a> activation, and contamination plume migration and vapour intrusion. The design should be informed by the Groundwater <del>m</del>Model as required by EPR GW2, and have regard to all available monitoring results (including of monitoring under the Groundwater Monitoring Plan (<a href="#">GMP</a>) required by EPR GW5, if available) and an assessment of material durability (including the potential for acid to be generated by oxidation of acid sulfate soils).</li> </ol>  | Supported   |
| GW2                | <p><b>Design and construction to be informed by groundwater modelling</b></p> <ol style="list-style-type: none"> <li>1. Develop groundwater models through a process that is consistent with the Australian Groundwater Modelling Guidelines (Barnett et al. 2012) and verified by the IEA. Where fate and transport models are required, these should include all input values to enable replication/verification of the fate and transport modelling undertaken. Apply models in the detailed design phase to predict impacts associated with any changes</li> </ol>  | Supported   |

| #   | Environmental Performance Requirement  | Minister’s assessment |
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|     | <p>to construction techniques or operational design features proposed during detailed design, and reconfirm that EPRs and mitigation measures are sufficient to mitigate impacts from changes in groundwater levels, flow and quality.</p> <ol style="list-style-type: none"> <li>2. Conduct groundwater scenario modelling of current climate conditions as well as projected future climate change conditions over the Project design life, for changes to key processes including sea levels and coastal inundation, evapotranspiration and recharge, to inform the detailed design consistent with EPR GW1. Assessments must be 'based on a comprehensive analysis of the best practicably available information at the time modelling is undertaken to assess the potential impacts of climate change' over the Project’s design life, to be consistent with the guiding principles of the <i>Climate Change Act 2017</i> (Vic).</li> <li>3. <u>Regularly update</u> numerical models <del>should be regularly updated</del> to achieve transient calibration, to confirm prediction of cumulative impacts during construction and inform uncertainty assessments, having regard to the results of monitoring carried out pursuant to the <u>GMP Groundwater Monitoring Plan</u> prepared per EPR GW5.</li> <li>4. Utilise results from monitoring carried out pursuant to the Groundwater Monitoring Plan prepared per EPR GW5 during construction to ensure that predictions are accurate both temporally and spatially and mitigation measures are appropriate, and adjust models if required.</li> </ol>  |                       |
| GW3 | <p><b>Develop, implement, and maintain a Groundwater Management Plan</b></p> <ol style="list-style-type: none"> <li>1. Develop, implement and maintain a Groundwater Management Plan (GWMP) that details the groundwater management approaches required to identify, avoid and minimise impacts to groundwater levels, flow and quality as far as reasonably practicable and includes relevant aspects from EPR GW5.</li> <li>2. <del>The GWMP must be</del> Base <u>the GWMP</u> on the detailed design <u>g</u>Groundwater <del>m</del>Model, and <del>must</del> include the following: <ol style="list-style-type: none"> <li>a) Mitigation measures to be implemented if drawdown at existing active groundwater wells used for consumptive purposes exceeds acceptable levels (greater than a 10% reduction in available drawdown in the well). A consistent methodology must be developed to assess these impacts.</li> <li>b) Mitigation measures to be implemented if drawdown at existing active investigation/observation wells are such that bores can no longer be used for observation or sampling</li> <li>c) Mitigation measures to manage oxidation of potentially acid sulfate soils or manage acidic groundwater consistent with the Potential Acid Sulfate Soil and Rock Management Plan required by EPR C6</li> <li>d) Mitigation measures for maintaining quantity and quality of groundwater contribution to groundwater dependent ecosystems where there is predicted to be an unacceptable change in groundwater levels, flow or quality</li> <li>e) An approach developed in consultation with EPA Victoria to minimise risk of harm so far as reasonably practicable from contaminant migration (including vapour intrusion into underground structures such as Project structures and third-party deep basements)</li> <li>f) Measures to address groundwater contamination if found to be present in any areas of potential groundwater drawdown, to minimise risk of harm so far as reasonably practicable from contaminant migration</li> <li>g) Identification of groundwater drawdown trigger levels at which mitigation must be implemented to protect receptors and sensitive sites</li> <li>h) A <u>GMP Groundwater Monitoring Plan</u> in accordance with EPR GW5, appropriate to identify changes early so that mitigation can be implemented to avoid impact to the environment and human health</li> <li>i) Contingency measures to be implemented where unexpected groundwater conditions are encountered.</li> </ol> </li> <li>3. <del>The GWMP must be</del> Develop <u>the GWMP</u> in consultation with the EPA Victoria, relevant water authorities and stakeholders, including major groundwater users, and reference the Contaminated Land Management Plan (see EPR C2). It must also be undertaken in accordance with the Groundwater Disposal Strategy where relevant (see GW4).</li> <li>4. <del>The GWMP should be</del> <u>Review the GWMP</u> annually or at frequency as determined with the <u>IEA Independent Environmental Auditor</u> to confirm the plan is adequately addressing impacts of works as they progress to different stages and as sections are</li> </ol> | Supported             |

| #   | Environmental Performance Requirement   | Minister’s assessment   |
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|     | completed, and to review the need to commission additional monitoring bores or to decommission monitoring bores, subject to approval from Southern Rural Water.   |   |
| GW4 | <p><b>Develop and implement a Groundwater Disposal Strategy</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement a Groundwater Disposal Strategy for the construction phase of the Project, in consultation with relevant water authorities and other relevant stakeholders.</li> <li>2. <del>The disposal strategy must</del> Apply the waste management hierarchy <a href="#">to the disposal strategy to</a> <del>and</del> be consistent with the EPA waste management regulations, and include: <ol style="list-style-type: none"> <li>a) Identification of primary discharge location, daily discharge volumes and treatment requirements</li> <li>b) Monitoring plan to ensure that groundwater quality meets disposal criteria</li> <li>c) Contingency measures if capacity of primary discharge location is exceeded, particularly during extended wet periods</li> <li>d) Measures for collection, treatment and disposal of groundwater seepage during construction in accordance with the EP Act waste management hierarchy.</li> </ol> </li> <li>3. <del>A trade waste agreement should be</del> <a href="#">Obtain a trade waste agreement</a> from the relevant water authority where disposal to sewer is required or approval from EPA Victoria and the relevant water authority (as required) if discharge to waterways or groundwater recharge is determined to be appropriate.</li> </ol>  | Supported   |
| GW5 | <p><b>Develop, implement and maintain a Groundwater Monitoring Plan</b></p> <ol style="list-style-type: none"> <li>1. Prior to commencement of construction works that may impact groundwater, develop, maintain and implement a groundwater monitoring plan as part of the GWMP and in accordance with EPR C1. The monitoring plan should establish baseline water level, flow, and quality for an area at least equal to the modelled drawdown extent around the construction works. Groundwater monitoring data should be used to inform the development and update of the groundwater model(s) prepared in accordance with EPR GW2.</li> <li>2. <del>The plan should</del> Detail sufficient monitoring of groundwater levels, flow and quality <a href="#">in the plan to</a> assess impacts including: <ol style="list-style-type: none"> <li>a) Reduction in access to groundwater for consumptive well owners</li> <li>b) Impacts which affect the ability to observe and sample groundwater in existing third-party investigation wells</li> <li>c) Reduction in groundwater contribution to groundwater dependent ecosystems</li> <li>d) Contaminant migration or vapour (including landfill gas) intrusion to underground structures caused by drawdown or induced groundwater flow</li> <li>e) Activation of PASS and groundwater acidification</li> <li>f) Disposal of groundwater inflows.</li> </ol> </li> <li>3. <a href="#">Ensure</a> the plan <del>should</del>: <ol style="list-style-type: none"> <li>a) enables calibration and verification of the predictive model, and to inform changes to the model, prepared pursuant to EPR GW2</li> <li>b) enables early identification of changes so that mitigation can be investigated and if necessary implemented to avoid impact receptors or sensitive sites</li> <li>c) details sufficient monitoring of groundwater to verify that groundwater levels, flow and quality are recovering (or have recovered) as predicted post-construction</li> <li>d) Require relevant key stakeholders to be alerted in the event that significant or unexpected changes in groundwater level, flow or quality are detected during monitoring</li> </ol> </li> <li>4. <del>Where the GMP Groundwater Management Plan (EPR GW3) identifies a potential impact on a Groundwater Dependent Ecosystem,</del> <a href="#">Align</a> the <del>GMP Plan should align</del> with the Surface Water Management Plan and the water quality monitoring program (EPR SW1 and EPR SW7) <a href="#">where the GMP Groundwater Management Plan (EPR GW3) identifies a potential impact on a Groundwater Dependent Ecosystem..</a></li> </ol> | Supported subject to changes at GW5 item 6 to clarify the relevant division of DELWP. |

| #                          | Environmental Performance Requirement   | Minister’s assessment |
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|                            | <p>5. <del>The plan must be</del> <u>Implement and maintain the plan</u> during construction and for a minimum of <del>five</del> <u>two</u> years following the completion of tanking (once watertightness is achieved), or until an independent <del>Statutory E</del> <u>Environmental Auditor</u>, appointed pursuant to section 208 of the EP Act, verifies that groundwater is recovering (or has recovered) to a satisfactory level. Assessment of recovery must take into account prevailing climatic conditions and natural variability flow.</p> <p>6. <u>Provide</u> the data collected under the <del>GMP Groundwater Monitoring Plan should be provided</del> to DELWP at least annually, to be made accessible to the public via the State-wide database Water Measurement Information System. <u>This data is to include at least annual publication of water quality and contamination testing results from sampled water bores.</u></p>  |                       |
| GW6                        | <p><b>Manage groundwater during operation</b></p> <p>1. <del>As part of the OEMP,</del> Develop and implement a strategy for management, monitoring (informed by the monitoring program developed in GW5), reuse where possible and disposal of groundwater inflows during operation <u>as part of the OEMP</u> . The strategy must apply the waste management hierarchy, be consistent with the waste management regulations and guidance provided by EPA, and include:</p> <ul style="list-style-type: none"> <li>a) Identification of primary discharge location, daily discharge volumes and treatment requirements</li> <li>b) Monitoring plan to ensure that groundwater quality meets disposal criteria and does not pose unacceptable impacts to water quality in local waterways and water bodies</li> <li>c) Consistency with the wastewater management controls in EPR SW6</li> <li>d) Contingency measures and emergency response plans if unexpected groundwater volume or contamination is encountered and requires disposal.</li> </ul> <p>2. <u>Obtain</u> a trade waste agreement <del>should be obtained</del> from the relevant water authority where disposal to sewer is required or approval from EPA and the relevant water authority (as required) if discharge to waterways or groundwater recharge is determined to be appropriate.</p> | Supported             |
| <b>Historical Heritage</b> |   |                       |
| HH1                        | <p><b>Design and construct to avoid and minimise impacts on heritage</b></p> <p>1. Undertake detailed design and construction planning of the temporary and permanent works to avoid and/or minimise impacts so far as reasonably practicable on the historical cultural heritage values of heritage places in consultation with Heritage Victoria and/or local governments (as applicable).</p>  | Supported             |
| HH2                        | <p><b>Undertake works to protect and manage heritage places and fabric</b></p> <p>1. <del>Prior to commencement of works with the potential to affect heritage places, structures or features, directly or indirectly, —</del> <u>Develop and implement in consultation with the relevant heritage authority</u></p> <ul style="list-style-type: none"> <li>a) Physical protection measures for potentially affected heritage places, structures or features as appropriate</li> <li>b) Where required, a methodology for any required dismantling, storage, relocation or reinstatement of heritage fabric (with reference to the ICOMOS Burra Charter 2013 and in consultation with the asset owner),</li> </ul> <p><u>prior to commencement of works with the potential to affect heritage places, structures or features, directly or indirectly, in consultation with the relevant heritage authority.</u></p>   | Supported             |
| HH3                        | <p><b>Undertake archival photographic recording</b></p> <p>1. <del>Prior to commencement of works where heritage places are demolished or modified by the works,</del> Undertake archival photographic recording of heritage places (including trees) and their settings, in accordance with Heritage Victoria’s specification or guidelines for the archival photographic recording of heritage places, to the satisfaction of the relevant Responsible Authority, <u>prior to commencement of works where heritage places are demolished or modified by the works.</u></p>  | Supported             |
| HH4                        | <p><b>Monitor and manage condition of heritage sites</b></p> <p>1. Undertake pre-construction and post-construction condition survey(s) in accordance with EPR GM2 for heritage places at risk of impact from settlement and structural integrity disturbance as a result of the Project. Measures to manage and monitor potential vibration and settlement impacts on heritage places during construction to be implemented in accordance with the Construction Noise and Vibration Management Plan required by EPR NV3 and the Ground Movement Plan(s) required by GM3.</p>   | Supported             |

Appendix A - Suburban Rail Loop East – Minister’s assessment under Environment Effects Act 1978

| #   | Environmental Performance Requirement  | Minister’s assessment   |
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|     | <p>2. Report the results of monitoring for heritage places to the landowner and the relevant Responsible Authority and take remedial action, if required, to the satisfaction of the Responsible Authority.</p> <p><b>NOTE:</b> The EPR applies across the Project and to all heritage places at risk of impact.</p>   |   |
| HH5 | <p><b>Develop and implement an Archaeological Management Plan</b></p> <p>1. <del>For all sites in the Victorian Heritage Inventory.</del> Develop and implement an Archaeological Management Plan in consultation with Heritage Victoria <a href="#">for all sites in the Victorian Heritage Inventory</a>, detailing measures to avoid, minimise, mitigate and manage disturbance of archaeological sites and values affected by the Project.</p> <p>2. Undertake <a href="#">these</a> investigations in accordance with the Guidelines for Investigating Historical Archaeological Artefacts and Sites, Heritage Victoria 2015 and to the satisfaction of the Executive Director, Heritage Victoria.</p> <p>3. <a href="#">Ensure</a> the Archaeological Management Plan <del>must</del> includes:</p> <p>a) Requirements for background historical research, excavation methodology, research design, reporting and artefact management, artefact conservation, and analysis</p> <p>b) Protocols for managing previously unidentified historical archaeological sites discovered during the works</p>  | Supported   |
| HH6 | <p><b>Develop and implement an unexpected discovery protocol</b></p> <p>1. Develop and implement protocols for managing previously unidentified historical archaeological sites discovered during the works in consultation with Heritage Victoria.</p>  | Supported   |
| HH7 | <p><b>Minimise impact and undertake reinstatement of Box Hill Gardens</b></p> <p>1. Minimise the temporary and permanent footprint of the Project at Box Hill Gardens as required by EPR LUP1.</p> <p>2. Minimise tree removal and implement tree protection measures as required by EPR <a href="#">AR42</a> and EPR <a href="#">AR23</a>.</p> <p>3. Develop and implement a plan to guide the reinstatement of landscape character to the impacted areas of Box Hill Gardens in consultation with the local council and park manager. Recognising the extent of change that has occurred in the eastern half of the Gardens, the plan must reflect and incorporate aspects of the design and character of the gardens as established in the interwar period, including path layout, open lawns and a mix of characteristic exotic and native specimen trees. The timing for implementation of the plan following completion of construction within Box Hill Gardens for SRL East should consider the timing for the commencement of the next stage of SRL, subject to approvals.</p> <p>4. Ensure the plan is developed by an appropriately qualified landscape architect including heritage landscape input on the basis of historical research and analysis and with reference to the 2010 Box Hill Gardens Master Plan, or any other plan for Box Hill Gardens adopted and approved by Council.</p> | Supported   |
| HH8 | <p><b>Develop a heritage interpretation strategy</b></p> <p>1. Develop and implement a heritage interpretation strategy for heritage places which explores historical and Aboriginal cultural heritage themes, in consultation with Heritage Victoria, the relevant local government and/or Aboriginal Victoria and/or Traditional Owners (as applicable).</p> <p>2. <del>The heritage interpretation strategy should</del> Include site interpretation initiatives for temporary (during construction works) and permanent works in <a href="#">the heritage interpretation strategy</a>. <del>The heritage interpretation strategy should also consider the SRL Urban Design Strategy.</del></p> <p>3. <a href="#">Ensure</a> the <a href="#">heritage interpretation</a> strategy <del>must</del> considers the whole of Project, but particularly:</p> <p>a) SRL station at Cheltenham (former Highett Gasworks)</p> <p>b) SRL station at Burwood (Burwood Skyline Drive-In)</p> <p>c) SRL station at Box Hill (multiple potential locations)</p> <p>d) <a href="#">SRL Urban Design Strategy</a>.</p>   | Supported with amendment to ensure the heritage interpretation strategy considers and is informed by the Aboriginal cultural values assessment. |
| HH9 | <p><b>Develop and implement external conservation works</b></p>  | Supported   |

Appendix A - Suburban Rail Loop East – Minister’s assessment under Environment Effects Act 1978

| #                        | Environmental Performance Requirement   | Minister’s assessment |
|--------------------------|---|-----------------------|
|                          | <ol style="list-style-type: none"> <li>1. Develop and implement a scope of external conservation works for the former Railway Hotel (950-956 Whitehorse Road Box Hill) <del>in consultation with</del> <u>to the satisfaction of Whitehorse Council.</u> <del>the relevant local council.</del></li> <li>2. Develop and implement a scope of external conservation works for the following heritage structures which are directly affected by works in consultation with <del>the relevant local</del> <u>Whitehorse Council</u>:               <ol style="list-style-type: none"> <li>a) South Africa and China Memorial – Whitehorse Road &amp; Watts Street, Median Strip, Box Hill</li> <li>b) Whitehorse Hotel Statue and Portico – Whitehorse Road, Median Strip, Box Hill</li> <li>c) Cr. Ellingworth Commemorative Drinking Fountain – Whitehorse Road, Median Strip, Box Hill</li> <li>d) Three lamp post standards (if affected by works) – Whitehorse Road, Median Strip, Box Hill</li> </ol> </li> <li>3. <u>Review whether it is feasible to safely retain all or parts of the Colonial Gas Association Building and/or 948 Whitehorse Road in consultation with Whitehorse Council.</u> In the event it is feasible to safely retain <u>all or</u> a portion of the Colonial Gas Association Building and/or 948 Whitehorse Road, conservation works would be undertaken. <u>The priority for retention is the Colonial Gas Association Building.</u></li> </ol>  |                       |
| <b>Land use planning</b> |   |                       |
| LUP1                     | <p><b>Minimise design and construction impact on existing land uses</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement a plan that specifies how the design and construction of the Project minimises impacts on existing land uses as follows:           <ol style="list-style-type: none"> <li>a) Maintains an overall positive balance between negative impacts arising from the temporary and permanent footprint of the Project and benefits arising from the Project’s planning and design outcomes on the following land uses:               <ol style="list-style-type: none"> <li>i. retail and commercial activity centres</li> <li>ii. public transport hubs</li> <li>iii. public open space, including pathways</li> <li>iv. industrial precincts</li> <li>v. residential properties</li> <li>vi. community, sporting and recreational facilities</li> <li>vii. other sensitive uses including educational precincts, student accommodation, aged care facilities and boarding / rooming houses.</li> </ol> </li> <li>b) Avoids or, where avoidance is not feasible, minimises to the greatest extent practicable, the impacts to existing residential areas by locating new above ground infrastructure, such as electrical substations, in appropriate locations with consideration of the adjoining properties and the possibility for co-location of rail infrastructure facilities where practicable.</li> </ol> </li> <li>2. <del>Construction laydown and permanent infrastructure must</del> Avoid <u>construction laydown and permanent infrastructure at or in</u> the Kingston Walk Linear Reserve and the Henry Street Reserve in Heatherton, with the exception of minor landscaping works, including installation of a shared user path. <del>Trees must be</del> Retained and protected <u>trees</u> in accordance with EPR EC1.</li> </ol> | Supported             |
| LUP2                     | <p><b>Develop and implement an Interim Land Use Guideline</b></p> <ol style="list-style-type: none"> <li>1. <del>Prior to the completion of works at relevant sites</del> Develop and implement an Interim Land Use Guideline for the management of land acquired to facilitate construction, but not required for permanent SRL East infrastructure, <u>prior to the completion of works at relevant sites.</u></li> <li>2. <del>Where required by the Interim Land Use Guideline,</del> Develop Interim Land Use Plans prior to the completion of works at relevant sites <u>where required by the Interim Land Use Guideline</u>, consistent with the requirements of the Interim Land Use Guideline, SRL East Urban Design Strategy and the SRL East Environmental Management Framework.</li> <li>3. <u>Prepare</u> the Interim Land Use Plans <del>must be prepared</del> in consultation with the relevant local council, any relevant Government agencies and any Universities (in relation to the interface between the University campus and the nearest SRL station).</li> </ol>  | Supported             |

| #    | Environmental Performance Requirement   | Minister’s assessment   |
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| LUP3 | <p><b>Minimise impacts from the location of services and utilities</b></p> <p>1. Locate services and utility infrastructure in such a way that minimises impacts to existing residential areas, public open space and educational land uses so far as reasonably practicable and which meets the requirements of the utility service providers. This must include consideration of options to co-locate infrastructure where practicable.</p>   | Supported   |
| LUP4 | <p><b>Develop and implement a Public Open Space Framework</b></p> <p>1. Manage effects to public open space from rail and infrastructure works in accordance with the Public Open Space Framework – Rail and Infrastructure prepared for the Project and approved by <a href="#">SRLA the Minister for Planning</a> after receiving the advice of the Public Open Space Expert Panel.</p> <p>2. <del>The Public Open Space Framework must</del> Set out principles and <a href="#">objectives actions in the Public Open Space Framework</a> to mitigate impacts on passive, active and planned open space from operation and construction, including <del>the objective where reasonable and practicable to</del> <a href="#">replacement of</a> existing public open space permanently lost <a href="#">or occupied for an extended period</a> with new open space of a similar size and quality.</p> <p>3. Prepare Public Open Space Management Plans in consultation with the landowner <del>and relevant councils</del> having regard to the advice of the <a href="#">Public Open Space Expert Panel (including Council representation)</a>, and engagement with relevant <a href="#">community and</a> user groups, to address specific areas of public open space in accordance with the Public Open Space Framework. The Public Open Space Management Plans must be prepared and approved prior to the commencement of works impacting existing open space, and must:</p> <ol style="list-style-type: none"> <li>a) Set out the mitigation measures to manage impacts on public open space.</li> <li>b) Set out the timing for the implementation of each of the mitigation measures.</li> <li>c) Where relevant, set out a process for the identification of public open space to replace existing public open space permanently lost <a href="#">or occupied for an extended period</a>, including suitable replacement land in key strategic locations with reference to: <ol style="list-style-type: none"> <li>i. the location and characteristics of the land</li> <li>ii. relevant approved strategic land use plans and policies, including those within planning schemes</li> <li>iii. existing and proposed public purpose reservations</li> </ol> </li> <li>d) Consider the SRL Urban Design Strategy and any existing strategic or master planning affecting the public open space, including any open space policies.</li> <li>e) Consider any relocation of existing infrastructure including recreational facilities and the requirement to maintain access for existing user groups.</li> <li>f) Be informed by consultation with user groups.</li> </ol> <p>4. <a href="#">Implement</a> mitigation measures set out in the Public Open Space Management Plans <del>must be implemented</del> unless otherwise agreed with the landowner of the relevant public open space.</p> | Supported in principle subject to amendments to give effect to the matters in my assessment, including the preparation of a Public Open Space Management Plan for the Heatherton Stabling Facility that is approved by the Minister for Planning. |
| LUP5 | <p><b><a href="#">Prepare a guide for planning permit applications under the SCO15 Suburban Rail Loop East Infrastructure Protection Incorporated Document</a></b></p> <p>1. <a href="#">Develop a guide for planning permit applications under the SCO15 Suburban Rail Loop East Infrastructure Protection Incorporated Document that:</a></p> <ol style="list-style-type: none"> <li>a) <a href="#">Explains the purposes of the control building on the work already found in the SRL East – Infrastructure Protection Report.</a></li> <li>b) <a href="#">Provides guidance on what information is required for specific applications and where detailed information can be obtained on matters such as load factors, tunnel depth etc.</a></li> <li>c) <a href="#">Provides examples of development and works that are exempt from the requirement for a permit (for locations outside Area A) and examples of where a permit will be required.</a></li> <li>d) <a href="#">Provide contact information for the referral authority to assist in the application process.</a></li> </ol>  | Supported   |

| #                           | Environmental Performance Requirement   | Minister’s assessment  |
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|                             | e) <a href="#">Include guidance about standard permit conditions that might be applied to specific applications.</a>  |  |
| <b>Landscape and visual</b> |   |  |
| LV1                         | <p><b>Designs to be in accordance with the Urban Design Strategy</b></p> <p>1. Develop and implement Urban Design and Landscape Plans for permanent above-ground works in accordance with the SRL East – Incorporated Document. The design responses must be in accordance with the SRL East Urban Design Strategy and, to the extent practicable:</p> <p>a) Maximise opportunities for enhancement of and creation of new public and private receptors including public amenity, streets, open space and facilities, and heritage places that are affected in relation to functionality and/or amenity as a result of permanent above ground works.</p> <p>b) Identify areas of potential high visual impact and provide appropriate and high quality visual mitigation together with physical mitigation and landscape integration (where appropriate).</p> <p>c) Ensure sufficient soil coverage above underground infrastructure in locations where the Urban Design and Landscape Plans require trees and other design elements that require soil coverage.</p> <p>d) Minimiseing overshadowing and wind impacts on existing and future public spaces.</p> | Supported  |
| LV2                         | <p><b>Plant trees early to re-establish amenity</b></p> <p>1. <del>In combination with AR34</del>, Plant appropriate trees in accordance with <a href="#">AR4 and</a> the Urban Design Strategy to achieve visual amenity and environmental outcomes as part of any new public realm and open space areas to assist with early establishment of station precinct amenity. All advanced and semi-advanced tree stock is to be in accordance with AS2303-2018 Tree Stock for Landscape Use.</p> <p>2. <del>Locations for trees should</del> Take into account future garden bed design in the <a href="#">locations for trees</a>, including consideration of water sensitive urban design such as passive irrigation.</p>  | Supported with amendment to add reference to planting of shrubs and understory vegetation in addition to trees, to reduce amenity impacts. |
| LV3                         | <p><b>Minimising operational lighting impacts</b></p> <p>1. Design and install Project lighting for permanent structures in accordance with relevant standards, including but not limited to Australian Standard 4282 – Control of the obtrusive effects of outdoor lighting (AS 4282 – 2019) and the relevant ecology requirements in EC1 and EC4.</p> <p>2.</p>   | Supported  |
| LV4                         | <p><b>Minimising construction lighting impacts</b></p> <p>1. Develop and implement measures to minimise the impact of light spill during construction to sensitive off-site receptors including residential dwellings, open space, and community facilities in accordance with AS4282 – Control of the obtrusive effects of outdoor lighting (AS4282-1997).</p>   | Supported  |
| LV5                         | <p><b>Minimise visual impacts during construction</b></p> <p>1. Design and carry out temporary and construction works in accordance with the guidance in the Urban Design Strategy to help manage construction impacts. Areas disturbed by temporary and construction works are to be reinstated in consultation with the relevant land manager.</p> <p>2. Develop and implement measures to use temporary landscaping, features or structures during construction to minimise adverse visual impact of Project works and provide visual appeal. Temporary landscape treatments, features or screening must be reused across the Project, where appropriate.</p> <p>3. Implement landscaping enhancement (with reference to EPR <a href="#">AR34</a>, LV2 and as part of permanent works) prior to construction works commencing, where practicable.</p>  | Supported  |
| LV6                         | <p><b>Minimise visual impacts from changed interface with residential dwellings</b></p> <p>1. Minimise the impacts to adjacent properties where the adjoining land-use changes from residential to public or a Project- related use which results in changed views, visual privacy and screening.</p> <p>2. <a href="#">Design and implement</a> boundary treatments <del>to be designed and implemented</del> with consideration of the change from a private to a public interface at the following locations:</p> <p>a) SRL station at Clayton shared northern boundary</p> <p>b) Emergency Support Facility northern boundary</p>   | Supported  |



| #  | Environmental Performance Requirement  | Minister’s assessment   |                  |                       |                      |   |  |                      |   |  |       |                                 |   |  |
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|  | <ul style="list-style-type: none"> <li>c) SRL station at Glen Waverley – west of Myrtle Street realignment</li> <li>d) SRL station at Box Hill pedestrian spine north of Whitehorse Road</li> <li>e) SRL station at Monash – interface with Monash University.</li> <li>f) SRL station at Burwood – McComas Grove and Sinnott Street.</li> </ul>   |   |                  |                       |                      |   |  |                      |   |  |       |                                 |   |  |
| LV7  | <p><del>Maintain</del> <u>Enhance</u> <b>visual screening for the Stabling Facility</b></p> <ol style="list-style-type: none"> <li>1. Retain and seek to enhance screening provided by existing mounds and plantings along the site boundaries to mitigate visual impacts to adjacent linear reserves, open space and residential dwellings through construction and operation of the Stabling Facility. If the existing mounds and screening require removal to facilitate the final design, visual screen would be reinstated to the extent practicable with reference to the landscape buffer as outlined in the Urban Design Strategy.</li> <li>2. <u>Consider the inclusion of green roof structures for discrete elements of the site and infrastructure.</u></li> </ol>   | Supported   |                  |                       |                      |   |  |                      |   |  |       |                                 |   |  |
| <b>Noise (airborne and ground borne) and vibration</b> |  |   |                  |                       |                      |   |  |                      |   |  |       |                                 |   |  |
| NV1A   | <p><u>Develop</u> <b>Process Statements with specific stakeholders</b></p> <ol style="list-style-type: none"> <li>1. <u>Apply</u> EPRs NV1-NV17 <del>apply</del> to any noise- or vibration-sensitive receiver except where a Process Statement exists in respect of the receiver or receivers, in which case the terms of the Process Statement prevail.<br/><b>NOTE:</b> A “Process Statement” means an agreement between SRLA and the relevant stakeholder addressing specific noise and vibration requirements for a specific sensitive receiver or receivers.</li> </ol>  | Supported in principle subject to the comments in my assessment.  |                  |                       |                      |   |  |                      |   |  |       |                                 |   |  |
| NV1  | <p><b>Minimise noise and vibration impacts to sensitive receivers during construction</b></p> <ol style="list-style-type: none"> <li>1. Manage and minimise so far as reasonably practicable construction noise and vibration impacts to sensitive receivers at all times consistent with EPA Victoria publications <i>Civil Construction, Building and Demolition Guide</i> (EPA Publication 1834 (2020), <i>Construction – guide to preventing harm to people and the environment</i> (EPA Publication 1820.1) (as amended or replaced from time to time), and in accordance with the SRLA <i>Residential Support Guidelines</i>, <i>SRLA Business Support Guidelines</i> and as specified in the Construction Noise and Vibration Management Plan (CNVMP).</li> <li>2. <del>The CNVMP as required by EPR NV3 must</del> <u>Do</u> not prescribe noise and vibration reference levels that are less stringent <u>than those set out below for the CNVMP as required by EPR NV3 : the provisions of EPA Victoria Publication 1834 (considering the reference levels for Managed Impact Works defined in EPR NV2), the SRLA Residential Support Guidelines, SRLA Business Support Guidelines or the British Standard BS6472-1:2008.</u></li> </ol> | <p>Supported in principle subject to the comments in my assessment.</p> <p>Amend the wording to clarify the role of the reference levels as informing the risk of harm.</p> <p>Changes required to weekend/evening reference levels for consistency with EPA policy.</p>  |                  |                       |                      |   |  |                      |   |  |       |                                 |   |  |
|  | <table border="1"> <thead> <tr> <th>Time period</th> <th>Applicable hours</th> <th>Reference levels LAeq</th> </tr> </thead> <tbody> <tr> <td>Normal working hours</td> <td>7am to 6pm<br/>Monday to Friday;<br/>7am to 1pm<br/>Saturday</td> <td>Noise level at any residential premises (external) not to exceed the pre-existing background noise (LA90) plus 10dB(A)</td> </tr> <tr> <td>Weekend/evening work</td> <td>6pm to 10pm<br/>Monday to Friday;<br/>1pm to 10pm<br/>Saturday;<br/>7am to 10pm<br/>Sunday and public holidays</td> <td>Noise level at any residential premises (external) not to exceed pre-existing background noise (LA90) plus 5 dB(A)</td> </tr> <tr> <td>Night</td> <td>10pm to 7am<br/>Monday to Sunday</td> <td>Noise is to be inaudible within a habitable room of any residential premises unless works are Unavoidable Works or Managed Impact Works, in which case they must be managed in accordance with the CNVMP required by NV3 and in accordance with the verification of the Independent Environmental Auditor of those works.</td> </tr> </tbody> </table>  | Time period   | Applicable hours | Reference levels LAeq | Normal working hours | 7am to 6pm<br>Monday to Friday;<br>7am to 1pm<br>Saturday | Noise level at any residential premises (external) not to exceed the pre-existing background noise (LA90) plus 10dB(A) | Weekend/evening work | 6pm to 10pm<br>Monday to Friday;<br>1pm to 10pm<br>Saturday;<br>7am to 10pm<br>Sunday and public holidays | Noise level at any residential premises (external) not to exceed pre-existing background noise (LA90) plus 5 dB(A) | Night | 10pm to 7am<br>Monday to Sunday | Noise is to be inaudible within a habitable room of any residential premises unless works are Unavoidable Works or Managed Impact Works, in which case they must be managed in accordance with the CNVMP required by NV3 and in accordance with the verification of the Independent Environmental Auditor of those works. |  |
| Time period  | Applicable hours   | Reference levels LAeq   |                  |                       |                      |   |  |                      |   |  |       |                                 |   |  |
| Normal working hours                                   | 7am to 6pm<br>Monday to Friday;<br>7am to 1pm<br>Saturday  | Noise level at any residential premises (external) not to exceed the pre-existing background noise (LA90) plus 10dB(A)  |                  |                       |                      |   |  |                      |   |  |       |                                 |   |  |
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| Night  | 10pm to 7am<br>Monday to Sunday  | Noise is to be inaudible within a habitable room of any residential premises unless works are Unavoidable Works or Managed Impact Works, in which case they must be managed in accordance with the CNVMP required by NV3 and in accordance with the verification of the Independent Environmental Auditor of those works. |                  |                       |                      |   |  |                      |   |  |       |                                 |   |  |

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|     | <p><a href="#">Do not prescribe vibration reference levels that are less rigorous than those recommended by British Standard BS6472-1:2008 in the CNVMP as required by EPR NV3.</a></p> <p><a href="#">Where an EPR prescribes a noise or vibration reference level or other level that is more rigorous than those set out above, the more rigorous level applies.</a></p> <p>NOTE:</p> <p>Reference levels are not compliance levels that if met will discharge the requirements of the general environmental duty. Reference levels represent levels at which harm to human health and the environment is more likely to occur. At all times, the contractor must first eliminate risks of harm so far as reasonably practicable, then reduce risks of harm so far as reasonably practicable. If exceedance of reference levels occurs after all reasonably practicable measures have been implemented, then further management actions must be implemented in accordance with the EPRs and the Residential Support Guidelines (as appropriate).</p>   |  |
| NV2 | <p><b>Minimise out of hours construction works and their impacts</b></p> <ol style="list-style-type: none"> <li>1. Schedule works during Normal Working Hours between the hours of 7 am - 6 pm Monday to Friday, and 7 am – 1 pm Saturdays, unless the works meet the following requirements: <ol style="list-style-type: none"> <li>a) Construction noise levels are predicted to comply with the noise requirements (specified in Table 4.3 of the <i>Civil construction, building and demolition guide</i> (EPA Publication 1834)<sup>2</sup> and are undertaken in accordance with management measures set out in the CNVMP developed under EPR NV3; or</li> <li>b) Construction vibration levels are predicted to comply with the relevant night period vibration reference level specified in BS6472-1:2008 (NV6) and are undertaken in accordance with management measures set out in the CNVMP developed under EPR NV3; or</li> <li>c) The works are verified by the Independent Environmental Auditor (IEA) to be Unavoidable Works or Managed-Impact Works as outlined in the <i>Civil construction, building and demolition guide</i> (EPA Publication 1834), and noise and vibration emissions (and their impacts) are managed so far as reasonably practicable.</li> </ol> </li> <li>2. <del>Base For the purpose of this EPR and other requirements relating to construction noise, all construction noise reference levels the relevant Weekend / Evening or Night period noise reference levels are to be based</del> on background levels for those time periods that represent the background level and the time of impact. <a href="#">This is applicable to For the purpose of this EPR and other requirements relating to construction noise.</a></li> <li>3. <del>Ensure that d</del>During Weekend / Evening periods as defined in EPA Publication 1834, noise levels from Managed-Impact Works (<math>L_{Aeq,15min}</math>) <del>do are not to</del> exceed a reference level set to the pre-existing background (<math>L_{A90}</math>) noise level at the time of impact by more than 10 dB for up to 18 months after the works commence at that location and by more than 5 dB after 18 months, unless offers are made to affected sensitive land uses to avoid the impacts of the exceedance.</li> <li>4. <del>Allow During Night periods as defined in EPA Publication 1834,</del> Managed Impact Works <del>to may</del> be conducted <a href="#">during Night periods as defined in EPA Publication 1834</a>, providing noise (including vibration) and its impacts are effectively managed to ensure that: <ol style="list-style-type: none"> <li>a) the noise does not have intrusive characteristics such as impulsiveness, tonality, intermittency or high energy in the low frequency range</li> <li>b) the construction noise level (<math>L_{Aeq,15min}</math>) is not predicted or measured to exceed a reference level set to the pre-existing background (<math>L_{A90}</math>) noise level at the time of impact unless offers are made to the affected sensitive land uses to avoid the impacts of the exceedance</li> </ol> </li> <li>5. <del>Verify The IEA must verify</del> that proposed works outside of Normal Working Hours meet the definitions of Unavoidable or Managed Impact Works outlined in EPA Publication 1834 for each instance they are undertaken, and that adequate management measures are in place to manage potential impacts. <a href="#">The IEA must verify and t</a><del>t</del>he IEA’s verification of management measures should consider prediction and modelling carried out under NV11 and community expectation and history of complaints.</li> <li>6. <del>Notification of any such works must be provided to</del> landowners <a href="#">of any works outside of Normal Working Hours</a> and <del>made</del> <a href="#">make available all notifications</a> on the Project</li> </ol> | <p>Supported in principle subject to minor amendments to improve legibility and expression including amending NV2 item 5 back to the previous text to ensure that it is clear that the IEA must verify Managed Impact Works and Unavoidable Works.</p> |

| #   | Environmental Performance Requirement   | Minister’s assessment  |
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|     | <p>website where the Weekend/Evening or Night reference levels specified in EPA Publication 1834 are predicted to be exceeded.</p> <p>7. <del>Monitor n</del>Noise and vibration <del>monitoring must be carried out</del> at the commencement of and during relevant works to confirm predicted levels and that appropriate management measures are implemented in accordance with the CNVMP developed under EPR NV3 as verified by the IEA.</p> <p>8. <del>Require IEA satisfaction that</del> <del>Satisfy to the IEA</del>, for any Managed-Impact works, <del>the IEA must be satisfied that</del> the planned works are expected to have a net benefit to the amenity of the affected community. The IEA must consider the following when determining the net amenity benefit of proposed Managed-Impact Works, as outlined in the CNVMP as required by EPR NV3:</p> <ul style="list-style-type: none"> <li>a) the degree of and duration of disturbance from the work</li> <li>b) whether measures have been put in place to avoid noise with intrusive characteristics at noise-sensitive land uses, including but not limited to impulsive noise, tonal noise, intermittent noise, and noise with high energy in the low frequency range</li> <li>c) whether measures to avoid the impacts (respite or alternative accommodation) relating to exceedance of the reference levels set in this EPR for Managed Impact Works have been offered to occupants of sensitive uses where these reference levels are predicted or measured to be exceeded during the proposed Managed Impact works</li> <li>d) whether the proposed management measures are consistent with the requirements of the SRLA <i>Residential Support Guidelines</i></li> <li>e) the need for the works and the approach to managing the impact of the proposed works</li> <li>f) community expectations and history of complaints about noise from Managed-Impact Works</li> <li>g) whether undertaking the works outside of Normal Working Hours materially reduces the duration and/or impact of the works, and if so whether this provides a benefit to the affected community</li> <li>h) cumulative impacts of construction noise and noise from other major construction sites impacting the same sensitive receivers (including works occurring in recent past or programmed sites for near future)</li> </ul> <p>9. <del>Develop a process for emergency works as t</del>The above requirements do not apply to emergency works to avoid the loss of life, damage to property, or to prevent environmental harm. The CNVMP must set out a process for responding to emergency works and informing EPA and relevant regulators about these works.</p> |  |
| NV3 | <p><b>Develop and implement a Construction Noise and Vibration Management Plan (CNVMP)</b></p> <ol style="list-style-type: none"> <li>1. Prepare, implement and maintain a Construction Noise and Vibration Management Plan (CNVMP) that minimises noise and vibration impacts so far as reasonably practicable in accordance with the EPRs. The CNVMP must be reviewed (including consultation with external stakeholders as required) and updated as appropriate at least every six months. The Independent Environmental Auditor must provide written verification that the review of the original CNVMP and each subsequent review of the CNVMP meets the requirements of the Noise and Vibration EPRs.</li> <li>2. <b>Modelling:</b> <del>Use modelling results to develop the CNVMP</del>. The CNVMP must be informed by noise and vibration modelling of the intended construction locations, durations of works, construction techniques, and preliminary tests undertaken to validate the model. The modelling should be updated at least every six months or when a phase of work changes and predictions remodelled as necessary to confirm the mitigation and remediation measures.</li> <li>3. <b>Contents of CNVMP:</b> <del>Ensure</del> the CNVMP <del>must-comply</del> <del>complies</del> with and addresses the Noise (airborne and ground-borne noise) and Vibration EPRs, <del>is be</del> informed by noise and vibration modelling described above, and <del>must-include</del>s (but <del>is not be</del> limited to): <ul style="list-style-type: none"> <li>a) Construction noise and vibration criteria and reference levels as set out in NV1, NV4 to NV10 and NV15</li> <li>b) Measures to manage and monitor potential vibration impacts on heritage places during construction where required, as set out in EPR HH4</li> </ul> </li> </ol>   | Supported in principle subject to amendment to item 5 e) in line with my assessment. |

| # | Environmental Performance Requirement  | Minister’s assessment |
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|   | <p>c) Details of construction activities and an indicative schedule for construction works, including the identification of key noise and/or vibration generating construction activities that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers.</p> <p>d) A clear rationale for Unavoidable Works and Managed Impact Works that are planned to be undertaken, and response strategies with mitigation measures to reduce the impacts of these works, so far as reasonably practicable and consistent with EPA publications <i>Civil construction, building and demolition guide</i> (EPA Publication 1834) and <i>Construction – Guide to preventing harm to people and the environment</i> (EPA Publication 1820.1) (as amended or replaced from time to time), the reference level for Managed Impact Works set in EPR NV2 and the SRLA Residential Support Guidelines. These measures would inform the specific Out of Hours CNVMP.</p> <p>e) How the impacts and risks of harm to human health and the environment from construction noise and vibration will be minimised, including but not limited to:</p> <ul style="list-style-type: none"> <li>i. where noise and vibration modelling of the intended construction methods and techniques demonstrates a potential exceedance of reference levels</li> <li>ii. where noise and vibration from Project works (including Initial Works if occurring at the same time) and from other developments occurring during construction could, based on noise and vibration modelling, exceed reference levels.</li> <li>iii. Where the environmental values for ambient sound defined in the ERS are at risk.</li> </ul> <p>f) Management actions, notification requirements and mitigation measures that will be implemented to reduce noise and vibration impacts so far as reasonably practicable, including (but not limited to) consideration of the following where reasonably practicable:</p> <ul style="list-style-type: none"> <li>i. Best practice construction technologies to minimise impacts</li> <li>ii. Scheduling works during less sensitive periods</li> <li>iii. Enclosures</li> <li>iv. Adaptive measures to provide periods of respite including scheduling noise intensive works at residential land uses after 9am, introducing one hour breaks from noise intensive works after three hours duration and alternating locations of noise intensive works to provide respite to sensitive receivers over the course of a day</li> <li>v. Measures to reduce noise impacts associated with truck haulage</li> <li>vi. Measures to avoid, minimise or mitigate noise and vibration associated with the use of hydraulic hammers</li> <li>vii. Site hoarding</li> <li>viii. Temporary structures to attenuate noise impacts</li> <li>ix. Measures to manage night works, including avoiding truck movements by storing spoil on-site at night and the use of non-tonal reversing alarms during night works</li> <li>x. Selecting the quietest available equipment/process for the job</li> </ul> <p>g) Roles and responsibilities of persons in control of or managing the site with respect to monitoring, reporting and follow up actions to be taken if not compliant with noise criteria and construction noise and vibration reference levels</p> <p>h) Any processes and measures to be implemented as part of the Communications and Stakeholder Engagement Plan (CSEP) including managing matters of interest raised by key stakeholders through CSMP processes, and measures concerning complaints management (see EPR SC2).</p> <p>i) Detail of the complaints management system for noise and vibration complaints, consistent with the requirements under EPR EMF4.</p> <p><b>4. Out of Hours Works CNVMP</b></p> |                       |

| #   | Environmental Performance Requirement  | Minister’s assessment |
|-----|--|-----------------------|
|     | <p>a) Prepare and implement a specific CNVMP for all Unavoidable Works (excluding emergency works as described in NV2) or Managed-Impact Works considering the specific requirements of the relevant locations and sensitive receptors.</p> <p>b) <u>Ensure</u> the Out of Hours Works CNVMP <del>should be</del> <u>is</u> consistent with the requirements of EPA Publication 1834 and SRLA <i>Residential Support Guidelines</i>, and verified by the Independent Environmental Auditor.</p> <p><b>5. Monitoring protocols</b></p> <p>a) <u>Ensure</u> <del>T</del>the CNVMP <del>must</del> <u>identify</u> <del>ies</del>-noise and vibration-sensitive receivers in the vicinity of the Project alignment, including identification of high-risk locations where modelled noise and/or vibration levels are predicted to present a risk of exceedance of the reference levels and where the environmental values for ambient sound of the ERS may be at risk for:</p> <ul style="list-style-type: none"> <li>i. a period of at least twelve months for Normal Working Hours; or</li> <li>ii. a period of at least three months for Out of Hours Works; or</li> <li>iii. a period of at least two months for sensitive equipment.</li> </ul> <p>b) Develop and implement monitoring protocols that are documented in the CNVMP to establish baseline conditions.</p> <p>c) Develop and implement measures to ensure effective monitoring of noise and vibration associated with construction (see EPR NV1 and NV4 to NV10, NV15) including:</p> <ul style="list-style-type: none"> <li>i. Monitoring procedures to validate construction predictions on a minimum monthly basis for works predicted to exceed construction noise and vibration criteria and reference levels set out in NV1, NV4 to NV10 and NV15</li> <li>ii. Attended and/or unattended monitoring procedures to respond to complaints.</li> <li>iii. <u>Prompt response to complaints</u></li> <li>iv. <u>Prompt implementation of management actions, notification requirements and mitigation measures in response to complaints</u></li> </ul> <p>d) Monitoring for the duration of noise and vibration generating works at representative and high risk locations and a requirement for automated alerts of exceedance of reference levels to personnel with control over construction activities in areas identified to be high risk in the CNVMP.</p> <p>e) <u>Publish on a publicly accessible project website real-time noise monitoring results (with explanation of the limitations of unverified data) and the relevant noise reference levels.</u></p> |                       |
| NV4 | <p><b>Minimise construction airborne and ground-borne noise impacts at non-residential noise sensitive receivers</b></p> <p>1. Develop and implement management actions for non-residential noise sensitive areas (based on AS/NZS 2107:2016 and the NSW Interim Construction Noise Guideline 2009) in accordance with the CNVMP (developed under EPR NV3) if construction airborne or ground-borne noise is predicted or measured to exceed the noise reference levels below, and a noise sensitive receiver is expected to be adversely impacted.</p> <p>2. <del>To</del> <u>D</u>etermine whether a noise sensitive receiver is, or predicted to be, adversely impacted having regard to:</p> <ul style="list-style-type: none"> <li>a) <del>Consider</del> <u>t</u>The level of construction noise</li> <li>b) <del>Consider</del> <u>t</u>The duration of construction noise</li> <li>c) <del>Consider</del> <u>t</u>The presence of any intrusive characteristics as part of the construction noise</li> <li>d) <del>Consider</del> <u>t</u>The existing ambient noise levels</li> <li>e) <u>Consultation</u> with the owner or operator of the noise sensitive receiver</li> <li>f) <del>Consider</del> <u>t</u>he sensitivity of the receiver to airborne noise (e.g. the environmental values for ambient sound defined in the ERS) that need protection from airborne noise</li> </ul>   | Supported             |

| #   | Environmental Performance Requirement  | Minister’s assessment |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
|---|--|-----------------------|---|---|----------------------------|--|----------------------------|--|---|---|---|-------------------|---|--|---|---------------------|---|-------------------------|---|---|---|--|
|   | <p>g) <del>Consider a</del>Any proposed actions provided for in the CNVMP developed under EPR NV3</p> <p>h) <del>Consider t</del>The necessity of construction activities where the levels in the table below are exceeded.</p> <table border="1" data-bbox="298 458 1192 1380"> <thead> <tr> <th data-bbox="298 458 751 563">Land use</th> <th data-bbox="751 458 1192 563">Construction noise management level, LAeq, 15min (applies when properties are in use)</th> </tr> </thead> <tbody> <tr> <td data-bbox="298 563 751 642">Classrooms in schools and other education centres including kindergartens</td> <td data-bbox="751 563 1192 642">Internal noise level 45 dB</td> </tr> <tr> <td data-bbox="298 642 751 675">Places of worship</td> <td data-bbox="751 642 1192 675">Internal noise level 45 dB</td> </tr> <tr> <td data-bbox="298 675 751 799">Active recreation areas characterised by sporting activities and activities which generate their own noise, making them less sensitive to external noise intrusion</td> <td data-bbox="751 675 1192 799">External noise level 65 dB (free-field)</td> </tr> <tr> <td data-bbox="298 799 751 986">Passive recreation areas characterised by contemplative activities that generate little noise and where benefits are compromised by external noise intrusion, for example reading, meditation</td> <td data-bbox="751 799 1192 986">External noise level 60 dB (free-field)</td> </tr> <tr> <td data-bbox="298 986 751 1091">Community centres</td> <td data-bbox="751 986 1192 1091">Depends on the intended use of the centre. Refer to the recommended maximum internal noise levels in AS/NZS 2107:2016</td> </tr> <tr> <td data-bbox="298 1091 751 1196">Performing arts facilities and studios</td> <td data-bbox="751 1091 1192 1196">Depends on the intended use of the facility or studio. Refer to the recommended maximum internal noise levels in AS/NZS 2107:2016</td> </tr> <tr> <td data-bbox="298 1196 751 1243">Industrial premises</td> <td data-bbox="751 1196 1192 1243">External noise level 75 dB (free-field)</td> </tr> <tr> <td data-bbox="298 1243 751 1298">Offices, retail outlets</td> <td data-bbox="751 1243 1192 1298">External noise level 70 dB (free-field)</td> </tr> <tr> <td data-bbox="298 1298 751 1380">CSIRO anechoic and reverberation chambers</td> <td data-bbox="751 1298 1192 1380">Internal noise level 5 dB above the internal ambient noise level in any octave band from 63 Hz to 4 kHz</td> </tr> </tbody> </table> | Land use              | Construction noise management level, LAeq, 15min (applies when properties are in use) | Classrooms in schools and other education centres including kindergartens | Internal noise level 45 dB | Places of worship  | Internal noise level 45 dB | Active recreation areas characterised by sporting activities and activities which generate their own noise, making them less sensitive to external noise intrusion | External noise level 65 dB (free-field) | Passive recreation areas characterised by contemplative activities that generate little noise and where benefits are compromised by external noise intrusion, for example reading, meditation | External noise level 60 dB (free-field) | Community centres | Depends on the intended use of the centre. Refer to the recommended maximum internal noise levels in AS/NZS 2107:2016 | Performing arts facilities and studios | Depends on the intended use of the facility or studio. Refer to the recommended maximum internal noise levels in AS/NZS 2107:2016 | Industrial premises | External noise level 75 dB (free-field) | Offices, retail outlets | External noise level 70 dB (free-field) | CSIRO anechoic and reverberation chambers | Internal noise level 5 dB above the internal ambient noise level in any octave band from 63 Hz to 4 kHz |  |
| Land use  | Construction noise management level, LAeq, 15min (applies when properties are in use)  |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Classrooms in schools and other education centres including kindergartens   | Internal noise level 45 dB   |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Places of worship   | Internal noise level 45 dB   |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Active recreation areas characterised by sporting activities and activities which generate their own noise, making them less sensitive to external noise intrusion                            | External noise level 65 dB (free-field)  |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Passive recreation areas characterised by contemplative activities that generate little noise and where benefits are compromised by external noise intrusion, for example reading, meditation | External noise level 60 dB (free-field)  |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Community centres   | Depends on the intended use of the centre. Refer to the recommended maximum internal noise levels in AS/NZS 2107:2016  |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Performing arts facilities and studios  | Depends on the intended use of the facility or studio. Refer to the recommended maximum internal noise levels in AS/NZS 2107:2016  |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Industrial premises   | External noise level 75 dB (free-field)  |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Offices, retail outlets   | External noise level 70 dB (free-field)  |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| CSIRO anechoic and reverberation chambers   | Internal noise level 5 dB above the internal ambient noise level in any octave band from 63 Hz to 4 kHz  |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| NV5   | <p><b>Establish guidelines to protect utility assets</b></p> <ol style="list-style-type: none"> <li><b>For construction:</b> Develop and implement management actions if the relevant guideline reference level from the options listed below is predicted or measured to exceed guideline values.</li> <li><b>For operation:</b> Design and implement mitigation measures to reduce vibration levels to the relevant reference levels, so far as reasonably practicable determined from one of the following approaches: <ol style="list-style-type: none"> <li>The vibration level provided by the asset owner to maintain utility asset integrity and which is accepted by the contractor(s); or</li> <li>If NV5(2a) is not applicable, the vibration level determined by the contractor(s) in consultation with the asset owner based on an assessment of the condition of the asset; or</li> <li>If neither NV5(2a) or (2b) are not applicable, the reference levels for buried pipework/underground infrastructure in the Table below, which adopts levels from the German Standard DIN 4150-3:2016.</li> </ol> <table border="1" data-bbox="298 1933 1192 2150"> <thead> <tr> <th data-bbox="298 1933 769 2013">Pipe material</th> <th data-bbox="769 1933 1192 2013">Reference Peak Component Particle Velocity, vi,max (mm/s) measured on the pipe</th> </tr> </thead> <tbody> <tr> <td data-bbox="298 2013 769 2045">Steel (including welded pipes)</td> <td data-bbox="769 2013 1192 2045">100</td> </tr> <tr> <td data-bbox="298 2045 769 2125">Clay, concrete, reinforced concrete, pre stressed concrete, metal (with or without flange)</td> <td data-bbox="769 2045 1192 2125">80</td> </tr> <tr> <td data-bbox="298 2125 769 2150">Masonry, plastic</td> <td data-bbox="769 2125 1192 2150">50</td> </tr> </tbody> </table> </li> <li>Notes: <ol style="list-style-type: none"> <li>The reference levels in the Table must be reduced by 50% when evaluating the effects of long-term vibration on buried pipework. Long-term vibration relates to</li> </ol> </li> </ol>   | Pipe material         | Reference Peak Component Particle Velocity, vi,max (mm/s) measured on the pipe        | Steel (including welded pipes)  | 100                        | Clay, concrete, reinforced concrete, pre stressed concrete, metal (with or without flange) | 80                         | Masonry, plastic   | 50                                      | Supported   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Pipe material   | Reference Peak Component Particle Velocity, vi,max (mm/s) measured on the pipe   |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Steel (including welded pipes)  | 100  |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Clay, concrete, reinforced concrete, pre stressed concrete, metal (with or without flange)  | 80   |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |
| Masonry, plastic  | 50   |                       |   |   |                            |  |                            |  |   |   |   |                   |   |  |   |                     |   |                         |   |   |   |  |

| #  | Environmental Performance Requirement   | Minister’s assessment   |   |               |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
|--|---|-------------------------|---|---------------|--|--|---------------------|--|-----------------------|--|-----------------|---------------|-----------------|---------------|-------------|-----|-----|-----|-----|--|-----|-----|-----|-----|-----------|-----|-----|-----|-----|----------|--|--|--|--|---------------------|--|----------------------|--|-----------------|---------------|-----------------|---------------|-------------|------|-----|-----|------|--|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|
|  | <p>events that may result in fatigue of materials or a significant resonant structural response (refer to DIN4150 for guidance on what is considered short-term and long-term).</p> <p>b) It is assumed pipes have been manufactured and laid using contemporary methods and technology. Where consultation with the asset owner reveals that this is not the case, alternative reference levels will be established under either NV5(2b) or (2c).</p> <p>c) Consultation is required with Melbourne Water if blasting is proposed within 60 m of one of their assets.</p> <p>d) Representative monitoring of vibration levels during construction is to be undertaken to demonstrate compliance with the relevant reference level.</p> <p>e) The reference levels are to be established as set out in NV5 2(a), (b) and (c) and should be sought to be achieved through the application of reasonably practicable mitigation measures. If exceedance occurs, the risk of harm or damage to the utility asset must be investigated; and where this risk is confirmed, additional mitigation measures would be required in consultation with the utility asset owner.</p> <p>f) Where necessary, rectify any defects that are attributable to the Project.</p> <p>g) Where a standard, guideline or asset owner’s procedures are applied, the measurement locations must reflect those stipulated in the relevant document from which the vibration criteria are adopted.</p>  |                         |   |               |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
| NV6  | <p><b>Minimise construction vibration impacts on amenity</b></p> <p>1. Develop and implement management actions if the following reference levels for vibration from construction activity to protect human comfort of occupied buildings (including heritage buildings) are predicted or measured to be exceeded (levels are calculated from the British Standard BS6472-1:2008).</p> <table border="1" data-bbox="298 1166 1192 1415"> <thead> <tr> <th rowspan="3">Type of space occupancy</th> <th colspan="4">Reference levels – Vibration Dose Values (m/s<sup>1.75</sup>)</th> </tr> <tr> <th colspan="2">Day (7 am to 10 pm)</th> <th colspan="2">Night (10 pm to 7 am)</th> </tr> <tr> <th>Preferred value</th> <th>Maximum value</th> <th>Preferred value</th> <th>Maximum value</th> </tr> </thead> <tbody> <tr> <td>Residential</td> <td>0.2</td> <td>0.4</td> <td>0.1</td> <td>0.2</td> </tr> <tr> <td>Offices, schools, education centres, places of worship</td> <td>0.4</td> <td>0.8</td> <td>0.4</td> <td>0.8</td> </tr> <tr> <td>Workshops</td> <td>0.8</td> <td>1.6</td> <td>0.8</td> <td>1.6</td> </tr> </tbody> </table> <p>2. Notes:</p> <p>a) Whilst the levels in the table are from the British Standard the day time and night-time duration has been amended to align with the EPA Publication 1834.</p> <p>b) For the purposes of undertaking measurements, modelling and further assessment of construction impacts, which are generally undertaken in the velocity metric (mm/s), these VDV’s have been converted to an equivalent PPV based upon a number of generic assumptions outlined in the SRL East Impact Assessment – Vibration and Ground-borne Noise].</p> <p>c) Where it can be shown that other PPVs are appropriate, and these are verified by the Independent Environmental Auditor, these can be applied.</p> <table border="1" data-bbox="298 1804 1192 2078"> <thead> <tr> <th rowspan="3">Location</th> <th colspan="4">Reference levels – Peak Particle Velocity (mm/s)</th> </tr> <tr> <th colspan="2">Day – 7 am to 10 pm</th> <th colspan="2">Night – 10 pm – 7 am</th> </tr> <tr> <th>Preferred value</th> <th>Maximum value</th> <th>Preferred value</th> <th>Maximum value</th> </tr> </thead> <tbody> <tr> <td>Residential</td> <td>0.75</td> <td>1.5</td> <td>0.5</td> <td>0.75</td> </tr> <tr> <td>Offices, schools, education centres, places of worship</td> <td>1.5</td> <td>3.0</td> <td>1.5</td> <td>3.0</td> </tr> <tr> <td>Workshops</td> <td>3.0</td> <td>5.0</td> <td>3.0</td> <td>5.0</td> </tr> </tbody> </table> <p>3. Notes:</p> <p>a) The reference levels are non-mandatory; they are goals that should be sought to be achieved through the application of practicable mitigation measures. If exceeded then management actions would be required.</p> | Type of space occupancy | Reference levels – Vibration Dose Values (m/s <sup>1.75</sup> ) |               |  |  | Day (7 am to 10 pm) |  | Night (10 pm to 7 am) |  | Preferred value | Maximum value | Preferred value | Maximum value | Residential | 0.2 | 0.4 | 0.1 | 0.2 | Offices, schools, education centres, places of worship | 0.4 | 0.8 | 0.4 | 0.8 | Workshops | 0.8 | 1.6 | 0.8 | 1.6 | Location | Reference levels – Peak Particle Velocity (mm/s) |  |  |  | Day – 7 am to 10 pm |  | Night – 10 pm – 7 am |  | Preferred value | Maximum value | Preferred value | Maximum value | Residential | 0.75 | 1.5 | 0.5 | 0.75 | Offices, schools, education centres, places of worship | 1.5 | 3.0 | 1.5 | 3.0 | Workshops | 3.0 | 5.0 | 3.0 | 5.0 | Supported |
| Type of space occupancy                                | Reference levels – Vibration Dose Values (m/s <sup>1.75</sup> )   |                         |   |               |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
|  | Day (7 am to 10 pm)   |                         | Night (10 pm to 7 am)   |               |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
|  | Preferred value   | Maximum value           | Preferred value   | Maximum value |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
| Residential  | 0.2   | 0.4                     | 0.1   | 0.2           |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
| Offices, schools, education centres, places of worship | 0.4   | 0.8                     | 0.4   | 0.8           |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
| Workshops  | 0.8   | 1.6                     | 0.8   | 1.6           |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
| Location   | Reference levels – Peak Particle Velocity (mm/s)  |                         |   |               |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
|  | Day – 7 am to 10 pm   |                         | Night – 10 pm – 7 am  |               |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
|  | Preferred value   | Maximum value           | Preferred value   | Maximum value |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
| Residential  | 0.75  | 1.5                     | 0.5   | 0.75          |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
| Offices, schools, education centres, places of worship | 1.5   | 3.0                     | 1.5   | 3.0           |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |
| Workshops  | 3.0   | 5.0                     | 3.0   | 5.0           |  |  |                     |  |                       |  |                 |               |                 |               |             |     |     |     |     |  |     |     |     |     |           |     |     |     |     |          |  |  |  |  |                     |  |                      |  |                 |               |                 |               |             |      |     |     |      |  |     |     |     |     |           |     |     |     |     |           |

| #  | Environmental Performance Requirement   | Minister’s assessment |   |  |                                 |  |  |   |  |  |  |                                 |            |             |               |  |    |          |          |    |    |  |   |         |          |    |    |  |   |        |         |   |    |           |
|--|---|-----------------------|---|--|---------------------------------|--|--|---|--|--|--|---------------------------------|------------|-------------|---------------|--|----|----------|----------|----|----|--|---|---------|----------|----|----|--|---|--------|---------|---|----|-----------|
|  | <p>b) The Preferred Value is the vibration level or dose at which there is a low probability of adverse comment or disturbance to building occupants. Contractors should design activities to not exceed the preferred values so far as reasonably practicable and where an area is not already exposed to vibration. Where all feasible and reasonable measures have been applied, values up to or beyond the Maximum Value may be used if they can be justified in accordance with the CNVMP as required by EPR NV3.</p> <p>c) Measurement locations must be consistent with section 5.2.3 of British Standard BS6472-1:2008.</p> <p>d) Either the reference VDV or the PPV values may be applied in the assessment</p>   |                       |   |  |                                 |  |  |   |  |  |  |                                 |            |             |               |  |    |          |          |    |    |  |   |         |          |    |    |  |   |        |         |   |    |           |
| NV7  | <p><b>Minimise construction and operational vibration impacts to structures</b></p> <p>1. <b>For Construction:</b> Develop and implement management actions if the construction vibration reference levels for short-term vibration effects on structures presented in the table below (which adopts levels from the German Standard DIN 4150-3:2016) are predicted or measured to not be achieved.</p> <p>2. <b>For Operation:</b> Design and implement practicable mitigation measures to reduce vibration levels to the relevant reference level so far as reasonably practicable for short-term vibration effects on structures presented in the table below (which adopts levels from the German Standard DIN 4150-3:2016).</p> <table border="1" data-bbox="298 929 1198 1490"> <thead> <tr> <th rowspan="3">Type of structure</th> <th colspan="5">Reference levels for Peak Component Particle Velocity, <math>v_{i,max}</math> (mm/s)</th> </tr> <tr> <th colspan="3">Short-term vibration at the foundation at a frequency of:</th> <th rowspan="2">Vibration at horizontal place of highest floor</th> <th rowspan="2">Floor slabs, vertical direction</th> </tr> <tr> <th>1 to 10 Hz</th> <th>10 to 50 Hz</th> <th>50 to 100 Hz*</th> </tr> </thead> <tbody> <tr> <td>Buildings used for commercial purposes, industrial buildings and buildings of similar design</td> <td>20</td> <td>20 to 40</td> <td>40 to 50</td> <td>40</td> <td>20</td> </tr> <tr> <td>Residential buildings and buildings of similar design and/or occupancy</td> <td>5</td> <td>5 to 15</td> <td>15 to 20</td> <td>15</td> <td>20</td> </tr> <tr> <td>Structures that, because of their particular sensitivity to vibration cannot be classified under lines 1 and 2 and are of intrinsic value (such as heritage buildings)</td> <td>3</td> <td>3 to 8</td> <td>8 to 10</td> <td>8</td> <td>20</td> </tr> </tbody> </table> <p>*At frequencies &gt; 100 Hz, the reference levels in this column may be used as a minimum.</p> <p>3. Notes:</p> <p>a) Vibration levels marginally exceeding the reference levels in the table would not necessarily mean that damage would occur and further investigation would be required to determine if higher vibration levels can be accommodated without risk of damage.</p> <p>b) For civil engineering structures (e.g. with reinforced concrete constructions used as abutments or foundation pads) the values for Type 1 buildings may be increased by a factor of 2.</p> <p>c) Short-term vibration is defined in German Standard DIN 4150-3:2016 as vibration that does not occur often enough to cause material fatigue and whose development over time and duration will not induce a significant increase in vibration due to resonance in the particular structure.</p> <p>4. <b>For Construction:</b> Implement management actions if the construction vibration reference levels for long-term vibration effects on structures presented in the table below (which adopts levels from the German Standard DIN 4150-3:2016) are expected not to be achieved or are not achieved.</p> <p>5. <b>For Operation:</b> Design and implement practicable mitigation measures to reduce vibration levels so far as reasonably practicable for long-term vibration effects on structures presented in the table below (which adopts levels from the German Standard DIN 4150-3:2016).</p> | Type of structure     | Reference levels for Peak Component Particle Velocity, $v_{i,max}$ (mm/s) |  |                                 |  |  | Short-term vibration at the foundation at a frequency of: |  |  | Vibration at horizontal place of highest floor | Floor slabs, vertical direction | 1 to 10 Hz | 10 to 50 Hz | 50 to 100 Hz* | Buildings used for commercial purposes, industrial buildings and buildings of similar design | 20 | 20 to 40 | 40 to 50 | 40 | 20 | Residential buildings and buildings of similar design and/or occupancy | 5 | 5 to 15 | 15 to 20 | 15 | 20 | Structures that, because of their particular sensitivity to vibration cannot be classified under lines 1 and 2 and are of intrinsic value (such as heritage buildings) | 3 | 3 to 8 | 8 to 10 | 8 | 20 | Supported |
| Type of structure  | Reference levels for Peak Component Particle Velocity, $v_{i,max}$ (mm/s)   |                       |   |  |                                 |  |  |   |  |  |  |                                 |            |             |               |  |    |          |          |    |    |  |   |         |          |    |    |  |   |        |         |   |    |           |
|  | Short-term vibration at the foundation at a frequency of:   |                       |   | Vibration at horizontal place of highest floor | Floor slabs, vertical direction |  |  |   |  |  |  |                                 |            |             |               |  |    |          |          |    |    |  |   |         |          |    |    |  |   |        |         |   |    |           |
|  | 1 to 10 Hz  | 10 to 50 Hz           | 50 to 100 Hz*   |  |                                 |  |  |   |  |  |  |                                 |            |             |               |  |    |          |          |    |    |  |   |         |          |    |    |  |   |        |         |   |    |           |
| Buildings used for commercial purposes, industrial buildings and buildings of similar design   | 20  | 20 to 40              | 40 to 50  | 40   | 20                              |  |  |   |  |  |  |                                 |            |             |               |  |    |          |          |    |    |  |   |         |          |    |    |  |   |        |         |   |    |           |
| Residential buildings and buildings of similar design and/or occupancy   | 5   | 5 to 15               | 15 to 20  | 15   | 20                              |  |  |   |  |  |  |                                 |            |             |               |  |    |          |          |    |    |  |   |         |          |    |    |  |   |        |         |   |    |           |
| Structures that, because of their particular sensitivity to vibration cannot be classified under lines 1 and 2 and are of intrinsic value (such as heritage buildings) | 3   | 3 to 8                | 8 to 10   | 8  | 20                              |  |  |   |  |  |  |                                 |            |             |               |  |    |          |          |    |    |  |   |         |          |    |    |  |   |        |         |   |    |           |



| #  | Environmental Performance Requirement   | Minister’s assessment   |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
|--|---|---|--|---|---|---|--|----------------|---|---|--|--------------|---|-----------|----|--|
|  | <table border="1" data-bbox="297 276 1190 712"> <thead> <tr> <th data-bbox="297 276 771 358" rowspan="2">Type of structure</th> <th colspan="2" data-bbox="771 276 1190 358">Reference levels for Peak Component Particle Velocity, <math>V_{i,max}</math> (mm/s) Long-term vibration</th> </tr> <tr> <th data-bbox="771 358 972 441">Horizontal plane of highest floor – All frequencies</th> <th data-bbox="972 358 1190 441">Floor slab, vertical direction – All frequencies</th> </tr> </thead> <tbody> <tr> <td data-bbox="297 441 771 543">Buildings used for commercial purposes, industrial buildings and buildings of similar design</td> <td data-bbox="771 441 972 543">10</td> <td data-bbox="972 441 1190 543">10</td> </tr> <tr> <td data-bbox="297 543 771 600">Residential buildings and buildings of similar design and/or occupancy</td> <td data-bbox="771 543 972 600">5</td> <td data-bbox="972 543 1190 600">10</td> </tr> <tr> <td data-bbox="297 600 771 712">Structures that, because of their particular sensitivity to vibration cannot be classified under lines 1 and 2 and are of intrinsic value (such as heritage buildings)</td> <td data-bbox="771 600 972 712">2.5</td> <td data-bbox="972 600 1190 712">10</td> </tr> </tbody> </table> <p data-bbox="297 737 407 762">6. Notes:</p> <ul style="list-style-type: none"> <li data-bbox="342 787 1190 892">a) Vibration levels marginally exceeding those in the table would not necessarily mean that damage would occur and further investigation would be required to determine if higher vibration levels can be accommodated without risk of damage.</li> <li data-bbox="342 917 1190 974">b) Levels in the above table may need to be adjusted following a pre-construction condition survey.</li> <li data-bbox="342 999 1190 1074">c) Long-term vibration is any vibration not covered by the definition of “short-term vibration” above and relates to events that may result in fatigue of materials or a significant resonant structural response.</li> </ul> | Type of structure   | Reference levels for Peak Component Particle Velocity, $V_{i,max}$ (mm/s) Long-term vibration                          |   | Horizontal plane of highest floor – All frequencies | Floor slab, vertical direction – All frequencies                | Buildings used for commercial purposes, industrial buildings and buildings of similar design                                 | 10             | 10  | Residential buildings and buildings of similar design and/or occupancy                  | 5  | 10           | Structures that, because of their particular sensitivity to vibration cannot be classified under lines 1 and 2 and are of intrinsic value (such as heritage buildings)  | 2.5       | 10 |  |
| Type of structure  | Reference levels for Peak Component Particle Velocity, $V_{i,max}$ (mm/s) Long-term vibration   |   |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
|  | Horizontal plane of highest floor – All frequencies   | Floor slab, vertical direction – All frequencies  |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
| Buildings used for commercial purposes, industrial buildings and buildings of similar design   | 10  | 10  |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
| Residential buildings and buildings of similar design and/or occupancy   | 5   | 10  |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
| Structures that, because of their particular sensitivity to vibration cannot be classified under lines 1 and 2 and are of intrinsic value (such as heritage buildings) | 2.5   | 10  |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
| NV8  | <p data-bbox="297 1081 1190 1106"><b>Minimise construction ground-borne (internal) noise impacts on residential amenity</b></p> <p data-bbox="297 1131 1040 1156">1. Development and implement management and contingency actions if:</p> <ul style="list-style-type: none"> <li data-bbox="342 1181 1190 1238">a) the following ground-borne noise reference levels are predicted or measured to be exceeded during construction; and</li> <li data-bbox="342 1263 1190 1338">b) airborne noise levels are lower than these ground-borne noise levels in the table below (which adopts levels from the NSW Interim Construction Noise Guideline, 2009).</li> </ul> <table border="1" data-bbox="297 1363 1190 1530"> <thead> <tr> <th data-bbox="297 1363 557 1437">Time of Day</th> <th data-bbox="557 1363 1190 1437">Ground-borne noise reference levels<br/>Internal noise level measured at the centre of the most affected habitable room</th> </tr> </thead> <tbody> <tr> <td data-bbox="297 1437 557 1495">Evening (6 pm to 10 pm)</td> <td data-bbox="557 1437 1190 1495">LAeq(15 minute) = 40 dBA</td> </tr> <tr> <td data-bbox="297 1495 557 1530">Night (10 pm to 7 am)</td> <td data-bbox="557 1495 1190 1530">LAeq(15 minute) = 35 dBA</td> </tr> </tbody> </table> <p data-bbox="297 1555 1190 1629">2. Include Management actions, such as community consultation and respite offer in accordance with the SRLA Business Support Guidelines and SRLA Residential Support Guidelines.</p>   | Time of Day   | Ground-borne noise reference levels<br>Internal noise level measured at the centre of the most affected habitable room | Evening (6 pm to 10 pm)                                     | LAeq(15 minute) = 40 dBA                            | Night (10 pm to 7 am)   | LAeq(15 minute) = 35 dBA   | Supported      |   |   |  |              |   |           |    |  |
| Time of Day  | Ground-borne noise reference levels<br>Internal noise level measured at the centre of the most affected habitable room  |   |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
| Evening (6 pm to 10 pm)  | LAeq(15 minute) = 40 dBA  |   |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
| Night (10 pm to 7 am)  | LAeq(15 minute) = 35 dBA  |   |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
| NV9  | <p data-bbox="297 1642 1049 1667"><b>Minimise amenity impacts from blast vibration and blast overpressure</b></p> <p data-bbox="297 1692 1190 1796">1. <b>Blast vibration</b> – Develop and implement management actions if the following vibration reference levels are predicted or measured to be exceeded. Blasting activities must comply with Australian Standard AS2187.2-2006, Explosives – Storage and use Part 2 – Use of explosives for all blasting.</p> <table border="1" data-bbox="297 1821 1190 2285"> <thead> <tr> <th data-bbox="297 1821 485 1896">Category</th> <th data-bbox="485 1821 664 1896">Type of blasting operations</th> <th data-bbox="664 1821 1190 1896">Reference levels<br/>Peak component particle velocity (mm/s)</th> </tr> </thead> <tbody> <tr> <td data-bbox="297 1896 485 2028">Sensitive site</td> <td data-bbox="485 1896 664 2028">Operations lasting longer than 12 months or more than 20 blasts</td> <td data-bbox="664 1896 1190 2028">5mm/s for 95% blasts per year<br/>10 mm/s maximum unless agreement is reached with the occupier that a higher level may apply</td> </tr> <tr> <td data-bbox="297 2028 485 2160">Sensitive site</td> <td data-bbox="485 2028 664 2160">Operations lasting less than 12 months or less than 20 blasts</td> <td data-bbox="664 2028 1190 2160">10 mm/s maximum unless agreement is reached with occupier that a higher level may apply</td> </tr> <tr> <td data-bbox="297 2160 485 2285">Occupied non-sensitive sites such as factories and commercial premises</td> <td data-bbox="485 2160 664 2285">All blasting</td> <td data-bbox="664 2160 1190 2285">25 mm/s maximum value unless agreement is reached with occupier that a higher level may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturer’s specification or levels that can be</td> </tr> </tbody> </table>   | Category  | Type of blasting operations  | Reference levels<br>Peak component particle velocity (mm/s) | Sensitive site                                      | Operations lasting longer than 12 months or more than 20 blasts | 5mm/s for 95% blasts per year<br>10 mm/s maximum unless agreement is reached with the occupier that a higher level may apply | Sensitive site | Operations lasting less than 12 months or less than 20 blasts | 10 mm/s maximum unless agreement is reached with occupier that a higher level may apply | Occupied non-sensitive sites such as factories and commercial premises | All blasting | 25 mm/s maximum value unless agreement is reached with occupier that a higher level may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturer’s specification or levels that can be | Supported |    |  |
| Category   | Type of blasting operations   | Reference levels<br>Peak component particle velocity (mm/s)   |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
| Sensitive site   | Operations lasting longer than 12 months or more than 20 blasts   | 5mm/s for 95% blasts per year<br>10 mm/s maximum unless agreement is reached with the occupier that a higher level may apply  |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
| Sensitive site   | Operations lasting less than 12 months or less than 20 blasts   | 10 mm/s maximum unless agreement is reached with occupier that a higher level may apply   |  |   |   |   |  |                |   |   |  |              |   |           |    |  |
| Occupied non-sensitive sites such as factories and commercial premises   | All blasting  | 25 mm/s maximum value unless agreement is reached with occupier that a higher level may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturer’s specification or levels that can be |  |   |   |   |  |                |   |   |  |              |   |           |    |  |

| #  | Environmental Performance Requirement  | Minister’s assessment  |                             |  |                |   |   |                |   |   |  |              |  |  |
|--|--|--|-----------------------------|--|----------------|---|---|----------------|---|---|--|--------------|--|--|
|  | <p data-bbox="667 281 1073 331">shown to adversely affect the equipment operation</p> <p data-bbox="297 438 1203 543">2. <b>Blast overpressure</b> – Develop and implement management actions if the following overpressure reference levels are predicted or measured to not be achieved. Blasting activities must comply with Australian Standard AS2187.2-2006, Explosives – Storage and use Part 2 – Use of explosives for all blasting.</p> <table border="1" data-bbox="297 568 1187 1123"> <thead> <tr> <th data-bbox="297 568 483 642">Category</th> <th data-bbox="483 568 656 642">Type of blasting operations</th> <th data-bbox="656 568 1187 642">Reference level<br/>Peak overpressure value (dBL)</th> </tr> </thead> <tbody> <tr> <td data-bbox="297 642 483 804">Sensitive Site</td> <td data-bbox="483 642 656 804">Operations lasting longer than 12 months or more than 20 blasts</td> <td data-bbox="656 642 1187 804">115 dBL for 95% blasts per year. 120 dBL maximum unless agreement with occupier that a higher level may apply</td> </tr> <tr> <td data-bbox="297 804 483 966">Sensitive site</td> <td data-bbox="483 804 656 966">Operations lasting less than 12 months or less than 20 blasts</td> <td data-bbox="656 804 1187 966">120 dBL for 95% blasts per year. 125 dBL maximum unless agreement with occupier that a higher level may apply</td> </tr> <tr> <td data-bbox="297 966 483 1123">Occupied non-sensitive sites such as factories and commercial premises</td> <td data-bbox="483 966 656 1123">All blasting</td> <td data-bbox="656 966 1187 1123">125 dBL maximum value unless agreement is reached with occupier that a higher level may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturers specification or levels that can be shown to adversely affect the equipment operation</td> </tr> </tbody> </table> <p data-bbox="297 1148 643 1178">3. For the purposes of this EPR:</p> <ul style="list-style-type: none"> <li data-bbox="345 1203 1143 1253">a) A sensitive site includes houses and low rise residential buildings, theatres, schools, and other similar buildings occupied by people.</li> <li data-bbox="345 1278 1170 1355">b) Reference levels to be established using the manufacturer’s specification or in consultation with the equipment owners (where substantiated with data) for vibration-sensitive equipment.</li> </ul> | Category   | Type of blasting operations | Reference level<br>Peak overpressure value (dBL) | Sensitive Site | Operations lasting longer than 12 months or more than 20 blasts | 115 dBL for 95% blasts per year. 120 dBL maximum unless agreement with occupier that a higher level may apply | Sensitive site | Operations lasting less than 12 months or less than 20 blasts | 120 dBL for 95% blasts per year. 125 dBL maximum unless agreement with occupier that a higher level may apply | Occupied non-sensitive sites such as factories and commercial premises | All blasting | 125 dBL maximum value unless agreement is reached with occupier that a higher level may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturers specification or levels that can be shown to adversely affect the equipment operation |  |
| Category   | Type of blasting operations  | Reference level<br>Peak overpressure value (dBL)   |                             |  |                |   |   |                |   |   |  |              |  |  |
| Sensitive Site   | Operations lasting longer than 12 months or more than 20 blasts  | 115 dBL for 95% blasts per year. 120 dBL maximum unless agreement with occupier that a higher level may apply  |                             |  |                |   |   |                |   |   |  |              |  |  |
| Sensitive site   | Operations lasting less than 12 months or less than 20 blasts  | 120 dBL for 95% blasts per year. 125 dBL maximum unless agreement with occupier that a higher level may apply  |                             |  |                |   |   |                |   |   |  |              |  |  |
| Occupied non-sensitive sites such as factories and commercial premises | All blasting   | 125 dBL maximum value unless agreement is reached with occupier that a higher level may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturers specification or levels that can be shown to adversely affect the equipment operation |                             |  |                |   |   |                |   |   |  |              |  |  |
| NV10   | <p data-bbox="297 1360 927 1390"><b>Minimise impacts on bio-resources and sensitive research</b></p> <p data-bbox="297 1415 1187 1492">1. Develop and implement practicable mitigation measures and management actions to achieve the following reference levels for all known and committed (as at the date of the Minister for Planning’s EES assessment) areas housing bio-resources:</p> <ul style="list-style-type: none"> <li data-bbox="345 1517 1143 1569">a) Background noise should be below 50 dBL1 (internal) and should be free of distinct tones, and</li> <li data-bbox="345 1594 1024 1622">b) Short noise exposure should be less than 85 dBL1 (internal), or</li> <li data-bbox="345 1647 1187 1699">c) Any alternative noise level agreed with the owner of the bio-resources including specific requirements for non-rodent bioresources</li> </ul> <p data-bbox="297 1724 412 1751">2. Notes:</p> <ul style="list-style-type: none"> <li data-bbox="345 1776 1187 1854">a) Noise levels are to be predicted, measured and assessed for the specific frequency range the species and type of hearing of the bio- resources potentially affected.</li> <li data-bbox="345 1878 1159 1983">b) Determining an acceptable level for bio-resources potentially affected by construction or operation should also consider the existing background levels they are exposed to during normal activities and regular maintenance of the facility.</li> </ul> <p data-bbox="297 2008 1187 2165">3. <u>Limit vibrations</u> for bio-resource facilities <del>are to be limited</del> to a maximum one-third octave rms level of less than 100 µm/s for general animal holding facilities and less than 50 µm/s for rodent holding and behavioural studies facilities (levels based on the Code of Practice for the Housing and Care of Laboratory Mice and Rats – Department of Primary Industries, Victoria 2004 and the National Institutes of Health Design Requirements Manual, 2008).</p>   | Supported  |                             |  |                |   |   |                |   |   |  |              |  |  |
| NV11   | <p data-bbox="297 2195 906 2225"><b>Undertake noise and vibration modelling and monitoring</b></p> <p data-bbox="297 2250 558 2280">1. <b>Construction phase</b></p>   | Supported  |                             |  |                |   |   |                |   |   |  |              |  |  |

| #                    | Environmental Performance Requirement  | Minister’s assessment             |                  |                          |                    |  |                                   |                      |   |                                  |           |
|----------------------|--|-----------------------------------|------------------|--------------------------|--------------------|--|-----------------------------------|----------------------|---|----------------------------------|-----------|
|                      | <p>a) Appoint suitably qualified acoustic and vibration consultants to predict and assess construction noise and vibration to inform the CNVMP and determine the practicable mitigation and management measures necessary to minimise vibration and noise impacts in accordance with EPR NV2 and EPR NV3.</p> <p>2. <b>Design phase</b></p> <p>a) Appoint suitably qualified acoustic and vibration consultants to predict and assess operational noise and vibration and determine the practicable mitigation measures necessary to achieve the vibration and noise reference levels in EPRs NV5, NV7, NV10 and NV12-NV16.</p> <p>b) Prediction and assessment of operational vibration and ground-borne noise <del>must be</del> consistent with the methods and guidance given in ISO 14837.1:2005 <i>Mechanical vibration – Ground-borne noise and vibration arising from rails systems – Part 1: General guidance</i>. Assessments based on modelling must factor in uncertainty in the model methodology, inputs and assumptions.</p> <p>c) <u>Require</u> an Operation Noise and Vibration Report <del>must</del> be prepared by suitably qualified acoustic and vibration consultants for review and verification by the Independent Environmental Auditor. The Operation Noise and Vibration Report must document the predictions and mitigation measures and the compliance of the design with the provisions of these EPRs.</p> <p>3. <b>Commissioning / Operation</b></p> <p>a) Appoint suitably qualified acoustic and vibration consultants to undertake commissioning noise and vibration measurements to assess levels and compliance with the provisions of these EPRs and to identify and implement contingency measures if the requirements in the EPRs are not met. This must be documented in a report reviewed and verified by the Independent Environmental Auditor and a copy of the report must be made available on request.</p>   |                                   |                  |                          |                    |  |                                   |                      |   |                                  |           |
| NV12                 | <p><b>Minimise airborne rail noise levels for operation</b></p> <p>1. Avoid, minimise or mitigate rail noise where the following Victorian Passenger Rail Infrastructure Noise Policy (PRINP) (April 2013) Investigation Thresholds are predicted to be exceeded or measured to be exceeded during operation:</p> <table border="1" data-bbox="298 1298 1187 1589"> <thead> <tr> <th data-bbox="298 1298 418 1348">Time</th> <th data-bbox="418 1298 1019 1348">Type of receiver</th> <th data-bbox="1019 1298 1187 1348">Investigation Thresholds</th> </tr> </thead> <tbody> <tr> <td data-bbox="298 1348 418 1485">Day, 6 am to 10 pm</td> <td data-bbox="418 1348 1019 1485">Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks.<br/>Noise sensitive community buildings, including schools, kindergartens, libraries, performing arts facilities.</td> <td data-bbox="1019 1348 1187 1485">60 dB LAeq,16h and/or 80 dB LAmax</td> </tr> <tr> <td data-bbox="298 1485 418 1589">Night, 10 pm to 6 am</td> <td data-bbox="418 1485 1019 1589">Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks.</td> <td data-bbox="1019 1485 1187 1589">55 dB LAeq,8h and/or 80 dB LAmax</td> </tr> </tbody> </table> <p>2. Notes:</p> <p>a) If an investigation shows that the Investigation Thresholds are not exceeded, then no further action is required.</p> <p>b) Any commissioning measurements conducted under NV11 must be used to calibrate the predicted rail noise levels for when the Project is operating at ultimate configuration and verify that compliance with NV12 is predicted for that ultimate configuration scenario.</p> <p>c) Noise levels are to be assessed at 1 m from the window of the most exposed habitable facade at a noise-sensitive land use.</p> <p>d) LAmax is defined as maximum A-weighted sound pressure level and is the 95th percentile of the highest value of the A-weighted sound pressure level reached within the day or night.</p> <p>e) If the Investigation Thresholds are not able to be achieved with the implementation of reasonably practicable on- reservation treatment, including consideration of urban design outcomes, then off-reservation treatment such as upgrades to residential building facades must be offered to affected landowners. Such treatments should be designed to meet the following internal noise levels where practicable to do so and subject to landowner consent:</p> | Time                              | Type of receiver | Investigation Thresholds | Day, 6 am to 10 pm | Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks.<br>Noise sensitive community buildings, including schools, kindergartens, libraries, performing arts facilities. | 60 dB LAeq,16h and/or 80 dB LAmax | Night, 10 pm to 6 am | Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks. | 55 dB LAeq,8h and/or 80 dB LAmax | Supported |
| Time                 | Type of receiver   | Investigation Thresholds          |                  |                          |                    |  |                                   |                      |   |                                  |           |
| Day, 6 am to 10 pm   | Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks.<br>Noise sensitive community buildings, including schools, kindergartens, libraries, performing arts facilities.   | 60 dB LAeq,16h and/or 80 dB LAmax |                  |                          |                    |  |                                   |                      |   |                                  |           |
| Night, 10 pm to 6 am | Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks.  | 55 dB LAeq,8h and/or 80 dB LAmax  |                  |                          |                    |  |                                   |                      |   |                                  |           |

| #  | Environmental Performance Requirement   | Minister’s assessment   |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
|--|---|---|-------------|--|-------------|-------------------|--|---------------------|--|---|-------------|---|--|----------|-----------------------|--|-------------|-----------------------|---------------|-------------|-----------------------|--------------------------|-------------|-----------------------|----------------|-------------|--|---|-------------|--|-------------------------------|-------------|--------------|------------------|-------------|-----------------------|-----------------------|-------------|---|-----------|
|  | <ul style="list-style-type: none"> <li>i. <del>35</del> <del>40</del> dB L<sub>Aeq,16h</sub> for living areas and <del>30</del> <del>35</del> dB L<sub>Aeq,8h</sub> for bedrooms with windows and doors closed.</li> <li>ii. Maximum noise levels of trains should not exceed <del>45</del> <del>50</del> dB L<sub>Amax</sub> when measured within bedrooms with windows and doors closed.</li> <li>iii. Maximum noise level of trains should not exceed <del>55</del> <del>60</del> dB L<sub>Amax</sub> when measured within living areas with windows and doors closed.</li> </ul>  |   |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| NV13   | <p><b>Minimise ground-borne noise impacts for operation</b></p> <p>1. Design and implement practicable mitigation measures to achieve the operational ground-borne noise reference levels for known and committed sensitive land uses (as at the date of the Minister for Planning’s EES assessment) as shown in the table below.</p> <table border="1" data-bbox="298 670 1183 1373"> <thead> <tr> <th data-bbox="298 670 621 725">Sensitive land use</th> <th data-bbox="621 670 792 725">Time of day</th> <th data-bbox="792 670 1183 725">Internal noise <del>reference-levels</del> <u>mandatory limits</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="298 725 621 882" rowspan="2">Residential</td> <td data-bbox="621 725 792 804">Day<br/>7am – 10pm</td> <td data-bbox="792 725 1183 804">40 dB L<sub>ASmax</sub> and an increase in existing rail noise level by 3 dB(A) or more</td> </tr> <tr> <td data-bbox="621 804 792 882">Night<br/>10pm – 7am</td> <td data-bbox="792 804 1183 882">35 dB L<sub>ASmax</sub> and an increase in existing rail noise level by 3 dB(A) or more</td> </tr> <tr> <td data-bbox="298 882 621 961">Schools, education centres, places of worship</td> <td data-bbox="621 882 792 961">When in use</td> <td data-bbox="792 882 1183 961">40-45 dB L<sub>ASmax</sub> and an increase in existing rail noise level by 3 dB(A) or more</td> </tr> <tr> <td data-bbox="298 961 621 1016">Hospitals (bed wards and operating theatres)</td> <td data-bbox="621 961 792 1016">24-hours</td> <td data-bbox="792 961 1183 1016">L<sub>ASmax</sub> 35</td> </tr> <tr> <td data-bbox="298 1016 621 1096">Offices (including private offices and conference rooms)</td> <td data-bbox="621 1016 792 1096">When in use</td> <td data-bbox="792 1016 1183 1096">L<sub>ASmax</sub> 40</td> </tr> <tr> <td data-bbox="298 1096 621 1126">Retail spaces</td> <td data-bbox="621 1096 792 1126">When in use</td> <td data-bbox="792 1096 1183 1126">L<sub>ASmax</sub> 50</td> </tr> <tr> <td data-bbox="298 1126 621 1156">Cinemas and public halls</td> <td data-bbox="621 1126 792 1156">When in use</td> <td data-bbox="792 1126 1183 1156">L<sub>ASmax</sub> 30</td> </tr> <tr> <td data-bbox="298 1156 621 1211">Drama theatres</td> <td data-bbox="621 1156 792 1211">When in use</td> <td data-bbox="792 1156 1183 1211">L<sub>ASmax</sub> 25 or other level derived having regard to Note (g)</td> </tr> <tr> <td data-bbox="298 1211 621 1265">Concert halls, television and sound recording studios</td> <td data-bbox="621 1211 792 1265">When in use</td> <td data-bbox="792 1211 1183 1265">L<sub>ASmax</sub> 25 or other level derived having regard to Note (g)</td> </tr> <tr> <td data-bbox="298 1265 621 1295">Vibration-sensitive equipment</td> <td data-bbox="621 1265 792 1295">When in use</td> <td data-bbox="792 1265 1183 1295">See Note (i)</td> </tr> <tr> <td data-bbox="298 1295 621 1325">Lecture theatres</td> <td data-bbox="621 1295 792 1325">When in use</td> <td data-bbox="792 1295 1183 1325">L<sub>ASmax</sub> 35</td> </tr> <tr> <td data-bbox="298 1325 621 1373">Other critical spaces</td> <td data-bbox="621 1325 792 1373">When in use</td> <td data-bbox="792 1325 1183 1373">Refer AS/NZS 2107:2016 having regard to note (j).</td> </tr> </tbody> </table> <p>2. Notes:</p> <ul style="list-style-type: none"> <li>a) The <del>reference</del> levels in the table above are <u>mandatory limits and are</u> based on the NSW Rail Infrastructure Noise Guideline, 2013 (RING)</li> <li>b) The <del>limits</del> <del>reference-levels</del> refer to operational rail noise only and do not include noise from ambient sources</li> <li>c) Ground-borne noise levels for human amenity are only relevant where they are audible and exceed operational airborne noise levels</li> <li>d) Assessment locations are internal and ground-borne noise is to be assessed near to but not at the centre of the most affected noise sensitive room in accordance with ISO 14837-1.</li> <li>e) L<sub>ASmax</sub> refers to the maximum noise level not exceeded by 95% of rail pass-by events</li> <li>f) For schools, education centres and places of worship the lower value of the range is applicable where low internal noise levels are expected</li> <li>g) The values for performing arts spaces may need to be reassessed to address the specific requirements of a venue. In the absence of specific reference levels for these performing art spaces, the L<sub>ASmax</sub> operational ground-borne noise level shall be limited to no more than the pre-existing ambient noise level (equivalent continuous noise level, L<sub>Aeq</sub>) determined for times when the venue is in use (including operation of building services). Any venue-specific reference levels must be substantiated by design and/or test data.</li> <li>h) The ‘residential’ category applies to any residential premises and includes long-term residential use such as aged care facilities</li> <li>i) Where vibration-sensitive equipment is demonstrated to be sensitive to ground-borne noise, reference levels are as follows:</li> </ul> | Sensitive land use  | Time of day | Internal noise <del>reference-levels</del> <u>mandatory limits</u> | Residential | Day<br>7am – 10pm | 40 dB L <sub>ASmax</sub> and an increase in existing rail noise level by 3 dB(A) or more | Night<br>10pm – 7am | 35 dB L <sub>ASmax</sub> and an increase in existing rail noise level by 3 dB(A) or more | Schools, education centres, places of worship | When in use | 40-45 dB L <sub>ASmax</sub> and an increase in existing rail noise level by 3 dB(A) or more | Hospitals (bed wards and operating theatres) | 24-hours | L <sub>ASmax</sub> 35 | Offices (including private offices and conference rooms) | When in use | L <sub>ASmax</sub> 40 | Retail spaces | When in use | L <sub>ASmax</sub> 50 | Cinemas and public halls | When in use | L <sub>ASmax</sub> 30 | Drama theatres | When in use | L <sub>ASmax</sub> 25 or other level derived having regard to Note (g) | Concert halls, television and sound recording studios | When in use | L <sub>ASmax</sub> 25 or other level derived having regard to Note (g) | Vibration-sensitive equipment | When in use | See Note (i) | Lecture theatres | When in use | L <sub>ASmax</sub> 35 | Other critical spaces | When in use | Refer AS/NZS 2107:2016 having regard to note (j). | Supported |
| Sensitive land use                                       | Time of day   | Internal noise <del>reference-levels</del> <u>mandatory limits</u>                          |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Residential  | Day<br>7am – 10pm   | 40 dB L <sub>ASmax</sub> and an increase in existing rail noise level by 3 dB(A) or more    |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
|  | Night<br>10pm – 7am   | 35 dB L <sub>ASmax</sub> and an increase in existing rail noise level by 3 dB(A) or more    |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Schools, education centres, places of worship            | When in use   | 40-45 dB L <sub>ASmax</sub> and an increase in existing rail noise level by 3 dB(A) or more |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Hospitals (bed wards and operating theatres)             | 24-hours  | L <sub>ASmax</sub> 35   |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Offices (including private offices and conference rooms) | When in use   | L <sub>ASmax</sub> 40   |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Retail spaces  | When in use   | L <sub>ASmax</sub> 50   |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Cinemas and public halls                                 | When in use   | L <sub>ASmax</sub> 30   |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Drama theatres   | When in use   | L <sub>ASmax</sub> 25 or other level derived having regard to Note (g)                      |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Concert halls, television and sound recording studios    | When in use   | L <sub>ASmax</sub> 25 or other level derived having regard to Note (g)                      |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Vibration-sensitive equipment                            | When in use   | See Note (i)  |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Lecture theatres   | When in use   | L <sub>ASmax</sub> 35   |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |
| Other critical spaces                                    | When in use   | Refer AS/NZS 2107:2016 having regard to note (j).   |             |  |             |                   |  |                     |  |   |             |   |  |          |                       |  |             |                       |               |             |                       |                          |             |                       |                |             |  |   |             |  |                               |             |              |                  |             |                       |                       |             |   |           |

| #  | Environmental Performance Requirement  | Minister’s assessment  |  |               |  |           |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |
|--|--|------------------------|--|---------------|--|-----------|--------------------|--|----------------------|--|-----------------|---------------|-----------------|---------------|------------|------|------|------|------|--|------|------|------|------|-----------|------|------|------|------|-----------|
|  | <ul style="list-style-type: none"> <li>i. where no stakeholder developed criteria exists, the equipment manufacturer/supplier ground-borne noise criteria unless existing ambient noise levels are higher than the manufacturer/supplier criteria, in which case the reference levels are the existing ambient noise levels (equivalent continuous noise level, <math>L_{Aeq}</math>) determined for times when the facility is in use; or</li> <li>ii. stakeholder developed criteria (substantiated by appropriate data and evidence) unless existing ambient noise levels are higher than the stakeholder developed criteria, in which case the reference levels are the existing ambient noise levels (equivalent continuous noise level, <math>L_{Aeq}</math>) determined for times when the facility is in use.</li> <li>j) For ‘other critical spaces’, the <math>L_{ASmax}</math>, 95% shall be designed to achieve the lower end of the <math>L_{Aeq}</math> design sound level range stipulated in AS/NZS 2107:2016, or the existing ambient noise level if it is higher.</li> </ul>   |                        |  |               |  |           |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |
| NV14   | <p><b>Minimise vibration impacts for operation</b></p> <p>1. Design, prepare and implement practicable mitigation measures for operation to achieve the following ‘preferred’ reference vibration levels (subject to Note 3) when accounting for the cumulative impacts of all operational rail vibration sources. <a href="#">The maximum value is a mandatory limit not to be exceeded.</a></p> <table border="1" data-bbox="298 904 1182 1236"> <thead> <tr> <th rowspan="3">Location</th> <th colspan="4">Reference level - VDV (<math>m/s^{1.75}</math>)</th> </tr> <tr> <th colspan="2">Day<br/>7am to 10pm</th> <th colspan="2">Night<br/>10pm to 7am</th> </tr> <tr> <th>Preferred Value</th> <th>Maximum Value</th> <th>Preferred Value</th> <th>Maximum Value</th> </tr> </thead> <tbody> <tr> <td>Residences</td> <td>0.20</td> <td>0.40</td> <td>0.10</td> <td>0.20</td> </tr> <tr> <td>Offices, schools, education centres, places of worship</td> <td>0.40</td> <td>0.80</td> <td>0.40</td> <td>0.80</td> </tr> <tr> <td>Workshops</td> <td>0.80</td> <td>1.60</td> <td>0.80</td> <td>1.60</td> </tr> </tbody> </table> <p>2. Notes:</p> <ul style="list-style-type: none"> <li>a) The <del>reference</del> levels in the table above are based on BS6472-1:2008</li> <li>b) Whilst the levels in the table are from the British Standard the day time and night-time duration has been amended to align with the NSW Rail Infrastructure Noise Guideline, 2013 (RING)</li> <li>c) Where vibration due to existing rail operations exceeds or is at or close to the relevant ‘preferred’ VDV and it is not reasonably practicable to achieve the ‘preferred’ VDV, implement all reasonably practicable mitigation measures to reduce vibration levels.</li> </ul>                          | Location               | Reference level - VDV ( $m/s^{1.75}$ ) |               |  |           | Day<br>7am to 10pm |  | Night<br>10pm to 7am |  | Preferred Value | Maximum Value | Preferred Value | Maximum Value | Residences | 0.20 | 0.40 | 0.10 | 0.20 | Offices, schools, education centres, places of worship | 0.40 | 0.80 | 0.40 | 0.80 | Workshops | 0.80 | 1.60 | 0.80 | 1.60 | Supported |
| Location   | Reference level - VDV ( $m/s^{1.75}$ )   |                        |  |               |  |           |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |
|  | Day<br>7am to 10pm   |                        | Night<br>10pm to 7am                   |               |  |           |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |
|  | Preferred Value  | Maximum Value          | Preferred Value                        | Maximum Value |  |           |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |
| Residences   | 0.20   | 0.40                   | 0.10                                   | 0.20          |  |           |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |
| Offices, schools, education centres, places of worship | 0.40   | 0.80                   | 0.40                                   | 0.80          |  |           |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |
| Workshops  | 0.80   | 1.60                   | 0.80                                   | 1.60          |  |           |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |
| NV15   | <p><b>Minimise impacts to vibration-sensitive equipment</b></p> <p>1. <b>For Construction:</b> Develop management actions that must be implemented if the relevant reference level from the options listed below for vibration caused by construction works for the Project is expected to be exceeded or is exceeded for known or committed (as at the date of the Minister for Planning’s EES assessment) vibration-sensitive equipment.</p> <p>2. <b>For Operation:</b> Design practicable mitigation measures that must be implemented to achieve the relevant reference level determined from the options listed below for vibration caused by operation of the Project at known or committed (as at the date of the Minister for Planning’s EES assessment) vibration-sensitive equipment:</p> <ul style="list-style-type: none"> <li>a) Stakeholder-developed criteria (substantiated by appropriate data and evidence) unless existing vibration levels are higher than the stakeholder developed criteria, in which case the reference levels are the existing vibration levels; or</li> <li>b) Where no stakeholder developed criteria exists, the equipment manufacturer/supplier vibration criteria unless existing vibration levels are higher than the manufacturer/supplier criteria, in which case the reference levels are the existing vibration levels; or</li> <li>c) If NV15(a) and (b) do not apply, the relevant American Society of Heating Refrigerating and Air-conditioning Engineers (ASHRAE) equipment vibration reference curve described in the Table below.</li> </ul> <table border="1" data-bbox="298 2250 1195 2275"> <thead> <tr> <th>Equipment requirements</th> <th>Reference curve</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table> | Equipment requirements | Reference curve                        |               |  | Supported |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |
| Equipment requirements                                 | Reference curve  |                        |  |               |  |           |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |
|  |  |                        |  |               |  |           |                    |  |                      |  |                 |               |                 |               |            |      |      |      |      |  |      |      |      |      |           |      |      |      |      |           |

| #   | Environmental Performance Requirement  | Minister’s assessment  |                |   |      |   |      |   |      |   |      |   |      |  |
|---|--|--|----------------|---|------|---|------|---|------|---|------|---|------|--|
|   | <table border="1"> <tr> <td data-bbox="298 281 954 331">Bench microscopes up to 100x magnification; laboratory robots.</td> <td data-bbox="954 281 1190 331">Operating room</td> </tr> <tr> <td data-bbox="298 331 954 468">Bench microscopes up to 400x magnification; optical and other precision balances; coordinate measuring machines; metrology laboratories; optical comparators; microelectronics manufacturing equipment; proximity and projection aligners, etc.</td> <td data-bbox="954 331 1190 468">VC-A</td> </tr> <tr> <td data-bbox="298 468 954 630">Microsurgery, eye surgery, neurosurgery; bench microscopes at magnification greater than 400x; optical equipment on isolation tables; micro electronic manufacturing equipment such as inspection and lithology equipment (including steppers) to 3 µm line widths.</td> <td data-bbox="954 468 1190 630">VC-B</td> </tr> <tr> <td data-bbox="298 630 954 767">Electron microscopes up to 30,000x magnification; microtomes; magnetic resonance images; microelectronics manufacturing equipment such as lithography and inspection equipment to 1 µm detail size.</td> <td data-bbox="954 630 1190 767">VC-C</td> </tr> <tr> <td data-bbox="298 767 954 929">Electron microscopes at magnification greater than 30,000x; mass spectrometers; cell implant equipment; microelectronics manufacturing equipment such as aligners, steppers and other critical equipment for photolithography with line widths of ½ µm; includes electron beam systems.</td> <td data-bbox="954 767 1190 929">VC-D</td> </tr> <tr> <td data-bbox="298 929 954 1066">Un-isolated laser and optical research systems; microelectronics manufacturing equipment such as aligners, steppers and other critical equipment for photolithography with line widths of ¼ µm; includes electron beam systems.</td> <td data-bbox="954 929 1190 1066">VC-E</td> </tr> </table>   | Bench microscopes up to 100x magnification; laboratory robots. | Operating room | Bench microscopes up to 400x magnification; optical and other precision balances; coordinate measuring machines; metrology laboratories; optical comparators; microelectronics manufacturing equipment; proximity and projection aligners, etc. | VC-A | Microsurgery, eye surgery, neurosurgery; bench microscopes at magnification greater than 400x; optical equipment on isolation tables; micro electronic manufacturing equipment such as inspection and lithology equipment (including steppers) to 3 µm line widths. | VC-B | Electron microscopes up to 30,000x magnification; microtomes; magnetic resonance images; microelectronics manufacturing equipment such as lithography and inspection equipment to 1 µm detail size. | VC-C | Electron microscopes at magnification greater than 30,000x; mass spectrometers; cell implant equipment; microelectronics manufacturing equipment such as aligners, steppers and other critical equipment for photolithography with line widths of ½ µm; includes electron beam systems. | VC-D | Un-isolated laser and optical research systems; microelectronics manufacturing equipment such as aligners, steppers and other critical equipment for photolithography with line widths of ¼ µm; includes electron beam systems. | VC-E |  |
| Bench microscopes up to 100x magnification; laboratory robots.  | Operating room   |  |                |   |      |   |      |   |      |   |      |   |      |  |
| Bench microscopes up to 400x magnification; optical and other precision balances; coordinate measuring machines; metrology laboratories; optical comparators; microelectronics manufacturing equipment; proximity and projection aligners, etc.   | VC-A   |  |                |   |      |   |      |   |      |   |      |   |      |  |
| Microsurgery, eye surgery, neurosurgery; bench microscopes at magnification greater than 400x; optical equipment on isolation tables; micro electronic manufacturing equipment such as inspection and lithology equipment (including steppers) to 3 µm line widths.                     | VC-B   |  |                |   |      |   |      |   |      |   |      |   |      |  |
| Electron microscopes up to 30,000x magnification; microtomes; magnetic resonance images; microelectronics manufacturing equipment such as lithography and inspection equipment to 1 µm detail size.   | VC-C   |  |                |   |      |   |      |   |      |   |      |   |      |  |
| Electron microscopes at magnification greater than 30,000x; mass spectrometers; cell implant equipment; microelectronics manufacturing equipment such as aligners, steppers and other critical equipment for photolithography with line widths of ½ µm; includes electron beam systems. | VC-D   |  |                |   |      |   |      |   |      |   |      |   |      |  |
| Un-isolated laser and optical research systems; microelectronics manufacturing equipment such as aligners, steppers and other critical equipment for photolithography with line widths of ¼ µm; includes electron beam systems.   | VC-E   |  |                |   |      |   |      |   |      |   |      |   |      |  |
| NV16  | <p><b>Minimise noise from the Stabling Facility, SRL stations and fixed plant</b></p> <ol style="list-style-type: none"> <li>Design, construct and operate the Stabling Facility, SRL stations and relevant fixed infrastructure that is subject to Part 5.3, Division 3 (Unreasonable and aggravated noise from commercial, industrial and trade premises) of the <i>Environment Protection Regulations 2021</i> to: <ul style="list-style-type: none"> <li>minimise the risk of harm from noise associated with the Project so far as reasonably practicable,</li> <li>prevent unreasonable noise by ensuring the risk of sporadic noise and low frequency noise is eliminated or managed, and</li> <li>ensure that noise levels do not exceed the noise limits set by the <i>Environment Protection Regulations 2021</i></li> </ul> </li> <li><u>Apply</u> this EPR <del>also applies</del> to noise from the substations at Burwood, Monash and the Stabling Facility when operating during the construction period.</li> <li><u>Conduct n</u>Noise monitoring, predictions and analysis for the purposes of this EPR <del>must be conducted</del> in accordance with the Noise Protocol (EPA Publication 1826.4), <i>Measuring and analysing industry noise and music noise</i> (Technical Guide: EPA Publication 1997) and, where relevant, the <i>Noise guideline – assessing low frequency noise</i> (EPA Publication 1996).</li> <li><del>For noise sensitive receivers where Part 5, Division 3 of the Environment Protection Regulations 2021 does not apply, d</del>Design and implement practicable measures for the Stabling Facility and relevant fixed infrastructure (<u>for noise sensitive receivers where Part 5, Division 3 of the Environment Protection Regulations 2021 does not apply</u>) to comply with the internal lower Recommended Design Sound Levels as defined in AS/NZS 2107:2016 or the existing internal background noise level, whichever is the higher, for the following areas: <ol style="list-style-type: none"> <li>Teaching spaces</li> <li>Laboratories</li> <li>Conference rooms</li> <li>Libraries</li> <li>Music studios</li> <li>Operating theatres / surgeries</li> <li>Wards</li> </ol> </li> </ol> | Supported  |                |   |      |   |      |   |      |   |      |   |      |  |

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|                             | <p>h) Performance spaces / galleries</p> <p>i) Places of worship.</p> <p>This EPR applies to train movements within the Stabling Facility boundary only and does not apply to noise generated by trains operating on the passenger rail infrastructure (EPR NV12 applies to noise on the passenger rail infrastructure).</p>  |  |
| NV17                        | <p><b><u>Assess cumulative noise levels from the Stabling Facility</u></b></p> <p><u>Assess cumulative noise from Stabling facility activities and train movements on the main line as an outdoor <math>L_{Aeq, 16hr}</math> for the daytime (6am-10pm) and <math>L_{Aeq, 8hr}</math> for the night (10pm-6am) as per the time periods nominated in the PRINP and the ERS.</u></p> <p><u>Compare the cumulative <math>L_{Aeq, 16hr}</math> and <math>L_{Aeq, 8hr}</math> against the higher of the existing corresponding ambient level (<math>L_{Aeq, 16hr}</math> and <math>L_{Aeq, 8hr}</math> respectively) or the ERS Category 3 objective level. Where the cumulative noise level exceeds the proposed assessment level, investigate treatments to mitigate cumulative noise to the proposed assessment levels. The IEA or EPA should determine whether such treatments fall within the definition of reasonably practicable and therefore be implemented.</u></p>  | Supported  |
| NV18                        | <p><b><u>Non-compliance of operational ground borne noise and vibration</u></b></p> <p><u>Undertake the following in the event the proposed mandatory limits for ground borne noise and vibration during the operation stage are not being achieved:</u></p> <ul style="list-style-type: none"> <li>a) <u>Liaise with the affected party and quantify the nature of exceedance</u></li> <li>b) <u>Investigate and implement all on site mitigation methods</u></li> <li>c) <u>Assess the risk of harm to human health and offer compensation to the affected party if the limits cannot be achieved. Compensation may include voluntary acquisition.</u></li> </ul>   | Supported<br>Amend NV18 item c) to include a cross-reference to the voluntary acquisition scheme at EPR SC7. |
| <b>Social and community</b> |   |  |
| SC1                         | <p><b>Develop a Communication and Stakeholder Engagement Management Framework</b></p> <p>1. Develop a Communication and Stakeholder Engagement Management Framework (CSEMF) to govern the stakeholder engagement plans developed for all Project components as required by EPR SC2. The framework must be consistent with IAP2 principles and guide the elements to be included in each engagement plan. The elements must include:</p> <ul style="list-style-type: none"> <li>a) Engagement principles and goals</li> <li>b) Governance</li> <li>c) Project stakeholders, including but not limited to communities, universities, and businesses</li> <li>d) Engagement approach including: <ul style="list-style-type: none"> <li>i. Phases and objectives</li> <li>ii. Tools and techniques</li> <li>iii. Approaches for different project stakeholders</li> <li>iv. Precinct reference groups for each of the six stations for the design and construction phases</li> <li>v. An outline of the purpose of engagement for different stakeholders.</li> </ul> </li> <li>e) Complaints management approach</li> <li>f) <u>Responsiveness to complaints approach</u></li> <li>g) Issues management approach</li> <li>h) Communication and engagement roles and responsibilities</li> <li>i) Engagement guidelines and references</li> <li>j) Review and evaluation approach</li> </ul> | Supported  |

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|     | <p>k) Measures to ensure the engagement plans allow for effective communication with Culturally and Linguistically Diverse communities, including allocation of appropriate persons to undertake interaction with these communities</p>   |  |
| SC2 | <p><b>Develop and implement Communications and Stakeholder Engagement Plans to manage interactions with the community</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement individual communications and stakeholder engagement plans for each of the Project components that comply with the CSEMF (EPR SC1) to address construction activities and how engagement will be undertaken with the community.</li> <li>2. <a href="#">Ensure these plans are written in plain English, include contacts for multiple languages, and are specific for each Station, the Stabling Facility and works area.</a></li> <li>3. <a href="#">Ensure these plans bring together the relevant EPRs and guidelines for each station and work area to provide a consolidated package of information.</a></li> </ol>   | Supported  |
| SC3 | <p><b>Minimise impacts on public open space and recreational infrastructure</b></p> <ol style="list-style-type: none"> <li>1. Implement the measures set out in the Public Open Space Management Plans developed to comply with the Public Open Space Framework – Rail and Infrastructure (EPR LUP4). The Public Open Space Management Plans must consider as a minimum: <ol style="list-style-type: none"> <li>a) Management of construction impacts on the users of public open space where these occur.</li> <li>b) Allowance for the continuity of use of active public open space facilities by sports clubs and other formal users at facilities equivalent to impacted facilities.</li> <li>c) Relocation of existing or provision of alternative infrastructure such as children’s playgrounds, running tracks, skateparks and basketball courts, barbeques and associated furniture <a href="#">on or in the closest proximity to the existing sites prior to works commencing</a>, including the need to maintain access for existing user groups.</li> <li>d) <a href="#">If SC31c) cannot be met</a>, provide access to alternative recreational infrastructure and public open space <a href="#">within a 1.6 kilometre</a> radius prior to the loss of the original facilities, <a href="#">unless otherwise specified in the Public Open Space Framework</a>.</li> <li>e) Locate alternative facilities within the same catchment of the displaced facilities unless otherwise agreed with the facility owner and informed by consultation with affected user groups, and local councils.</li> </ol> </li> </ol> | Supported  |
| SC4 | <p><b>Minimise disruption to public and private events</b></p> <ol style="list-style-type: none"> <li>1. Work with relevant local councils, <del>and</del> the universities <a href="#">and other key stakeholders</a> to plan for and coordinate <a href="#">with</a> key events <a href="#">(public and private) with key stakeholders during public events</a>. This must include, but not be limited to: <ol style="list-style-type: none"> <li>a) <a href="#">Gaining knowledge in advance of key events prior to construction and other works in order to plan construction around these.</a></li> <li>b) Timely provision of construction schedules to allow for appropriate event planning.</li> <li>c) Timely notification of schedule changes that may impact upon major public events.</li> <li>d) Consideration of appropriate alternative sites and routes for events and parades and facilitation of relocation, <a href="#">if necessary</a>.</li> </ol> </li> </ol>   | Supported in principle subject to a change to require that SRLA or the contractor keep up to date on key events throughout construction and plan construction work to minimise disruption of these events. |
| SC5 | <p><b>Provide relocation support to community facilities</b></p> <ol style="list-style-type: none"> <li>1. Implement measures set out in the SRL Business and Residential Relocation Support Guidelines for community facilities, with the option of early acquisition of, including, but not limited to: <ol style="list-style-type: none"> <li>a) Clayton Christadelphians</li> <li>b) Waverley RSL</li> <li>c) Monash City Church of Christ</li> <li>d) Monash Volunteer Centre</li> <li>e) Normanby House</li> <li>f) Monash Community Family Co-operative.</li> </ol> </li> </ol>  | Supported  |



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| SC6                  | <p><b>Minimise Disruption and Impacts on residents of Uniting AgeWell at Box Hill</b></p> <ol style="list-style-type: none"> <li>1. Appoint a senior stakeholder manager within SRLA to facilitate engagement and issue management between the contractor, SRLA and the operator of the Uniting AgeWell aged care facility (the Uniting AgeWell Facility) in accordance with EPR SC1, with a focus on resident welfare and amenity.</li> <li>2. Appoint an independent and suitably qualified aged care specialist to undertake an assessment in consultation with the operator of the Uniting AgeWell Facility to identify the specific sensitivities, needs and circumstances that should be taken into consideration in designing and implementing construction mitigation and management measures for the residents of the Uniting AgeWell Facility.</li> <li>3. Prepare and implement a site specific Uniting AgeWell construction management plan (UACMP) in consultation with the operator of the Uniting AgeWell Facility considering the assessment prepared by the independent aged care specialist. The IEA must verify the UACMP and seek advice from the independent aged care specialist, as required. The UACMP must include measures to address the particular needs of the Uniting AgeWell Facility during construction, which must include (but not necessarily be limited to): <ol style="list-style-type: none"> <li>a) Identification of amelioration measures to be implemented prior to the commencement of construction activities at the Uniting AgeWell Facility and/or within the Project land.</li> <li>b) Identification of amelioration measures to be implemented during the different phases of construction at the Uniting AgeWell Facility and/or within the Project land considering, but not necessarily limited to, relevant measures identified in EPR NV3 and as required by EPRs AQ1 and LV5.</li> <li>c) Identification of measures to treat the interface with the Uniting AgeWell Facility in accordance with the Urban Design Strategy.</li> <li>d) Identification and implementation of alternative access to Box Hill Gardens from the Uniting AgeWell Facility during construction, subject to approval from the operator of the Uniting AgeWell Facility and Whitehorse City Council.</li> <li>e) Layout of the construction site within the Project land at Box Hill Gardens taking into consideration the amenity of the residents of the Uniting AgeWell Facility, <a href="#">with the boundary of the construction site being at least 10 metres from the Uniting AgeWell southern fence line.</a></li> <li>f) Identification of all at-receiver mitigation measures which, subject to the consent of the operator of the Uniting AgeWell Facility, should be implemented at the Uniting AgeWell Facility. These measures may include glazing, air conditioning, landscaping, boundary treatments, and any other measures identified in the assessment conducted by the independent aged care specialist in accordance with EPR SC6(2).</li> </ol> </li> <li>4. <a href="#">Review</a> the UACMP <del>must be reviewed</del> on a six-monthly basis, in consultation with the operator of the Uniting AgeWell facility and including advice from the independent aged care specialist as required, and must respond to the different phases of construction to be undertaken at the Box Hill construction site. Each review must be verified by the IEA.</li> </ol> | <p>Supported in principle subject to amendments to require additional measures to further mitigate the potential for amenity and public safety effects in this area, in accordance with my assessment.</p> |
| <a href="#">SC7</a>  | <p><a href="#">Develop a voluntary residential acquisition plan</a></p> <p><a href="#">Prepare a plan that provides the opportunity for voluntary acquisition of residential property, should relevant guidelines within the plan be met.</a></p>  | <p>Support in principle subject to clarifying that defined criteria would need to be satisfied for residential properties to be eligible, in accordance with my assessment.</p>                            |
| <b>Surface Water</b> |  |  |
| SW1                  | <p><b>Develop and implement a Surface Water Management Plan during construction</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement a Surface Water Management Plan for construction (including during any breaks in construction), in consultation with EPA Victoria, Melbourne Water and other relevant authorities (e.g. councils), that sets out requirements and methods for: <ol style="list-style-type: none"> <li>a) Sedimentation and erosion control and monitoring, in general accordance with EPA Victoria’s publications: Construction techniques for sediment pollution controls (EPA Publication 275), Civil construction, building and demolition guide (EPA Publication 1834), Erosion, sediment and dust: treatment train (EPA Publication 1893), Managing soil disturbance (EPA Publication 1894), and Managing stockpiles (EPA Publication 1895)</li> </ol> </li> </ol>  | <p>Supported</p>   |

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|     | <ul style="list-style-type: none"> <li>b) Liquid handling and storage techniques, in general accordance with EPA Victoria’s publications: Liquid storage and handling guidelines (EPA Publication 1698) and Civil construction, building and demolition guide (EPA Publication 1834)</li> <li>c) Managing stormwater to meet objectives outlined in Urban Stormwater Best Practice Environmental Management Guidelines (CSIRO 1999), <a href="#">the Victorian Environmental Reference Standard, EPA Publication 1992</a> and to maximise opportunities for reuse on site so far as reasonably practicable, in accordance with the Urban stormwater management guidance (EPA Publication 1739.1) and the SRL East Integrated Water Management Strategy as required by EPR SW9</li> <li>d) Managing potentially contaminated surface water runoff, in general accordance with EPA Victoria’s publications Reducing stormwater pollution a guide for industry (EPA Publication 978) and Civil construction, building and demolition guide (EPA Publication 1834). Contaminated surface water runoff must not enter the stormwater drainage network or receiving waterways, as far as reasonably practicable (see EPR SW6)</li> <li>e) Measures for working within or adjacent to waterways, in general accordance with EPA Victoria’s publications: Working within or adjacent to waterways (EPA Publication 1896) and Civil construction, building and demolition guide (EPA Publication 1834)</li> <li>f) Contingency measures for responding to surface water incidents such as leaks and spills or un-authorised discharges</li> <li>g) Maintaining the key hydrologic and hydraulic functionality and reliability of existing flow paths, drainage lines and floodplain storage</li> <li>h) Retaining existing flow characteristics to maintain waterway stability downstream of construction</li> <li>i) Location and bunding of any contaminated material (including tunnel spoil and stockpiled soil) away from drainage lines and areas potentially impacted by flooding and to the requirements of EPA Victoria and the relevant drainage authority (also see EPR C3)</li> <li>j) Program works to minimise or avoid flood-related risks</li> <li>k) Bunding of excavations including tunnel portals and interchanges to an appropriate level during the construction phase</li> <li>l) Documenting the existing condition of all drainage assets potentially affected by the works (including their immediate surrounds) to enable baseline conditions to be established and potential construction impacts on these assets to be assessed and managed.</li> </ul> |                       |
| SW2 | <p><b>Develop and implement flood emergency management plans</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement flood emergency management plans for construction and operation. Flood emergency management plans are to include (but not be limited to) measures to manage flood risk to construction sites (including consideration of scheduling works and links to flood warning systems), the tunnels and tunnel portals including interchanges and substations, and operation, maintenance and emergency management procedures for flood protection works.</li> <li>2. <del>The above must be</del> Informed <a href="#">the flood emergency management plans</a> by a flood immunity risk assessment that considers a range of events, and <del>be</del> <u>is</u> developed in consultation with relevant statutory authorities.</li> </ol>  | Supported             |
| SW3 | <p><b>Minimise risks from changes to flood levels, depths, flows and velocities</b></p> <ol style="list-style-type: none"> <li>1. Undertake site inspections of existing conditions and modelling of the existing conditions and the design of permanent and temporary works to demonstrate the design of the permanent and temporary works is compliant with Melbourne Water <i>Standards for infrastructure projects in flood prone areas</i> (2019). The risk of blockage of key drainage infrastructure is to be included in this assessment.</li> <li>2. Develop and implement measures for temporary and permanent works in consultation with the relevant statutory authority to: <ul style="list-style-type: none"> <li>a) maintain existing flood plain storage capacity and flooding regime</li> <li>b) avoid increasing flood levels, depths, flows, velocities or flood hazards that result in adverse impacts to property, infrastructure or the environment, and/or</li> <li>c) avoid or minimise erosion due to overland flooding during construction or operation.</li> </ul> </li> </ol>   | Supported             |

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|     | <ol style="list-style-type: none"> <li>3. <a href="#">Confirm</a> these measures <del>must be confirmed</del> by an assessment that includes site inspections and flood modelling of the existing conditions and the design of permanent and temporary works in consultation with the responsible authority, which demonstrates that adverse impacts are minimised or avoided. Consultation with the relevant drainage authority should identify and discuss the potential to assist in managing existing flood risks.</li> <li>4. <a href="#">Ensure</a> permanent or temporary works must not increase the overall flood risk without the written acceptance of the relevant flood plain manager, drainage authority or asset owner.</li> <li>5. <a href="#">Represent</a> the final models (and any subsequent updated models) <del>must represent the</del> "as constructed" information, demonstrate that the design objectives are being met, and be verified by the <del>IEA Independent Environmental Auditor</del>.</li> </ol>   |                       |
| SW4 | <p><b>Model climate change effects on surface water</b></p> <ol style="list-style-type: none"> <li>1. <del>In undertaking surface water (including flood and water quality) assessments for the purposes of these EPRs, investigations must</del> Consider current climate conditions as well as projected future climate change conditions over the Project design life <a href="#">in undertaking surface water (including flood and water quality) assessments for the purposes of these EPRs</a>.</li> <li>2. <del>These assessments must be</del> <a href="#">Base these assessments</a> on Melbourne Water <i>Standards for infrastructure projects in flood-prone areas</i> (2019) and the Victorian Climate Projections (VCP) for 2050 and 2090 timeframes. Additionally, as the Project has a design life further into the future than these guidelines extend, assessments must also be 'based on a comprehensive analysis of the best practicably available information at the time modelling is undertaken to assess the potential impacts of climate change' over the Project's design life, in line with the guiding principles of the <i>Climate Change Act 2017</i> (Vic).</li> </ol> <p><b>NOTE:</b> <a href="#">Due</a> to the Project's distance from Port Phillip Bay, sea level rise impacts do not need to be considered in the assessment of flood risk.</p>   | Supported             |
| SW5 | <p><b>Design and operate SRL East to manage stormwater runoff</b></p> <ol style="list-style-type: none"> <li>1. Prepare a Stormwater Management Plan for operation, in consultation with relevant stakeholders (Melbourne Water, local councils, EPA Victoria) which identifies the stormwater treatments that will be used to minimise risk of harm from stormwater runoff and to ensure stormwater runoff meets, at minimum, the objectives outlined in EPA Publication 1739.1 Urban stormwater management guidance <a href="#">and the Victorian Environmental Reference Standard, EPA Publication 1992</a>.</li> <li>2. <a href="#">Ensure</a> the Stormwater Management Plan <del>must</del>: <ol style="list-style-type: none"> <li>a) details how runoff generated at each of the Project components during operation is to be managed in accordance with principles outlined in the Integrated Water Management Strategy (EPR SW9) and SRL Urban Design Strategy;</li> <li>b) addresses the management and maintenance of operational treatment assets; and</li> <li>c) considers the ultimate ownership of any operational treatment assets and any necessary arrangements to facilitate this.</li> </ol> </li> <li>3. <del>The Stormwater Management Plan must also</del> <a href="#">Include modelling in the Stormwater Management Plan</a> to demonstrate that stormwater runoff entering the stormwater system and receiving waterways can meet quality and quantity objectives outlined in EPA Publication 1739.1 during operation, or other guidance that supersedes this document. Modelling should be completed in general accordance with Healthy Waterways Strategy Stormwater Targets Practitioner’s Note (Melbourne Water 2021). <a href="#">Ensure modelling of water quality treatment accounts for all site surface water flows (not just incremental flows, based solely on the change to impervious site area from the Project)</a></li> <li>4. <del>The Stormwater Management Plan must</del> Demonstrate <a href="#">in the Stormwater Management Plan</a> that appropriate at-source controls have been considered to minimise the risk of harm from changes to stormwater run-off to existing or modified stormwater systems and receiving waterways so far as reasonably practicable.</li> <li>5. Design and operate SRL East in accordance with the Stormwater Management Plan.</li> </ol> | Supported             |
| SW6 | <p><b>Manage wastewater</b></p> <ol style="list-style-type: none"> <li>1. Manage wastewater in accordance with the Integrated Water Management Strategy (SW9) and the waste management hierarchy – in order of decreasing preference: avoidance, reuse, containment, and disposal. Wastewater includes, but is not limited to, contaminated surface water runoff, surface water within the existing pond on the</li> </ol>  | Supported             |

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|     | <p>Stabling Facility Project Land and any other wastewater generated by construction activities (excluding uncontaminated stormwater) and internal drainage water collected during operation. Disposal of groundwater is considered under EPR GW4.</p> <ol style="list-style-type: none"> <li>2. <u>Discharge</u> wastewater <del>should be discharged</del> to sewer in accordance with a trade waste agreement.</li> <li>3. If discharge to sewer is not possible due to insufficient capacity within the sewer network, discharge to the stormwater drainage network or waterways must occur in accordance with a wastewater discharge management plan that has been prepared in consultation with EPA Victoria and other relevant authorities (e.g. owners of drainage assets, Melbourne Water as the waterway manager).</li> <li>4. <u>Prepare a wastewater discharge management plan</u> to discharge to the stormwater network or a waterway if required. <del>prepare a wastewater discharge management plan</del>. The plan must include:               <ol style="list-style-type: none"> <li>a) Scenarios under which discharge to the stormwater network, or a waterway may be required</li> <li>b) Methods for characterising baseline ambient conditions of receiving waterways</li> <li>c) Methods for characterising quality of wastewater to be discharged in general accordance with <i>Sampling and analysis of waters, wastewaters, soils and wastes</i> (EPA Publication IWRG701)</li> <li>d) Methods for wastewater treatment prior to discharge</li> <li>e) Controls that will be used to minimise risks of harm</li> </ol> </li> <li>5. <u>Ensure</u> wastewater <del>that is</del> to be discharged to the stormwater drainage network or waterways <del>must be is</del> of sufficient quality to minimise the risk of harm to human health and the environment from the discharge. This will require consideration of baseline ambient conditions and the Environment Reference Standard of the EP Act.</li> </ol>   |                       |
| SW7 | <p><b>Develop and implement a <del>w</del>Water <del>e</del>Quality <del>m</del>Monitoring <del>p</del>Program</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement a <del>w</del>Water <del>e</del>Quality <del>m</del>Monitoring <del>p</del>Program which can:           <ol style="list-style-type: none"> <li>a) Prior to construction: characterise the baseline condition of receiving waters and existing water quality infrastructure potentially impacted due to Project construction activities</li> <li>b) During construction: monitor water quality changes in receiving waters due to Project activities</li> <li>c) Post construction: confirm water quality conditions are maintained.</li> </ol> </li> <li>2. <u>Ensure</u> the monitoring program:           <ol style="list-style-type: none"> <li>a) <del>Be is</del> developed in consultation with EPA Victoria, Melbourne Water (as the waterway manager) and asset owners (where applicable)</li> <li>b) <u>Specifies</u> locations, parameters, and frequency of monitoring (refer to EPR C1)</li> <li>c) <u>Includes</u> a plan to check the effectiveness of controls that are implemented to mitigate potential risks to surface waters, and detail additional and/or improved measures that would be implemented should those controls fail or are not effective to eliminate or minimise risks of harm to surface waters.</li> <li>d) <del>Be is</del> tailored to address data gaps (for example, lack of water quality data for Clayton South Drain, lack of baseline flow and water quality data to characterise the interaction between groundwater and Dampers Creek) and potential for impact (for example, Gardiners Creek is adjacent to the SRL station at Burwood).</li> <li>e) <u>Outlines</u> reporting documentation and distribution requirements for surface water monitoring, performance of controls and water quality data</li> <li>f) <u>Continues</u> for a minimum period of three years post construction</li> <li>g) <u>Requires</u> relevant stakeholders to be alerted in the event significant or unexpected changes in surface water levels, flow or quality, are detected during monitoring.</li> </ol> </li> <li>3. <del>The monitoring program must</del> Outline conditions <u>in the monitoring program</u> under which changes to water quality parameters need to be investigated, when works on-site need to be stopped in response to changes in parameters and what action is</li> </ol> | Supported             |

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|  | <p>required to rectify changes in water quality if they are attributable to the site construction.</p> <p><b>NOTE:</b> General guidance for sampling of surface water is provided in EPA Victoria Publication IWRG701: sampling and analysis of waters, wastewaters, soils and wastes and the Australian and New Zealand Guidelines for Fresh and Marine Water Quality.</p>  |  |
| SW8                                      | <p><b>Develop and implement a management plan for naturalisation of Gardiners Creek</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement a plan for naturalisation of Gardiners Creek in consultation with key stakeholders, including Melbourne Water (as the waterway manager) and Whitehorse Council. This plan must contain requirements and methods for minimising impacts to water quality or flooding regime within the reach subject to naturalisation works and areas potentially affected by change in water quality or flows. The plan must also contain requirements as outlined in EPR EC5.</li> <li>2. <del>The plan must be</del> Align <a href="#">the plan</a> with the approved Urban Design and Landscape Plan for the SRL station at Burwood.</li> </ol>  | Supported  |
| SW9                                      | <p><b>Develop and implement an Integrated Water Management Strategy</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement an Integrated Water Management Strategy in consultation with EPA Victoria, Melbourne Water, relevant local councils, relevant water corporations and Monash and Deakin Universities, in general accordance with the approach outlined in the Integrated Water Management Framework for Victoria (DELWP, 2017). The Integrated Water Management Strategy process, including engagement with these stakeholders, must be initiated as early as practically possible.</li> <li>2. Ensure the Integrated Water Management Strategy <del>must</del> outlines the principles for water management during both the construction and operational phases of the Project to maximise opportunities for reuse of water (including for irrigation), achieve flood mitigation, avoid flow and water quality impacts, enhance infiltration and provide broader environmental benefits (including assisting with urban heat island effect, improved human health and amenity outcomes). The Integrated Water Management Strategy must inform detailed design requirements to enable the realisation of these benefits.</li> <li>3. <u>Ensure</u> the Integrated Water Management Strategy <del>must be</del> is informed by the SRL Urban Design Strategy and <u>informs</u>: <ol style="list-style-type: none"> <li>a) Management of water within the Surface Water Management Plan for construction (EPR SW1)</li> <li>b) Management of stormwater runoff during operation (EPR SW5) and</li> <li>c) Management of wastewater (EPR SW6).</li> </ol> </li> <li>4. <u>Ensure</u> the Integrated Water Management Strategy: <del>must</del>: <ol style="list-style-type: none"> <li>a) as far as practicable, considers existing and proposed surface water assets, as well as approved future development as known at the time of the Ministers assessment which may impact on SRL surface water assets</li> <li>b) guides how Project sustainability targets relating to surface water will be achieved</li> <li>c) outlines requirements for the use of best practice Integrated Water Management approaches to be used in design development and the preparation of the Surface Water Management Plan (EPR SW5)</li> <li>d) outlines project wide and site-specific opportunities for Water Sensitive Urban Design and Integrated Water Management, and how these will be integrated into design solutions.</li> </ol> </li> </ol> | Supported  |
| SW10                                     | <p><b>Provide access to drainage authority assets</b></p> <ol style="list-style-type: none"> <li>1. <del>Where the Project impacts on existing access arrangements to drainage authority assets,</del> Provide adequate access for ongoing maintenance of <del>these</del> <a href="#">drainage authority assets</a> to the requirements of the relevant drainage authority.</li> </ol>  | Supported  |
| <b>Sustainability and Greenhouse Gas</b> |  |  |
| SGG 1                                    | <p><b>Develop Sustainability Targets and Performance indicators</b></p> <ol style="list-style-type: none"> <li>1. Develop sustainability targets for reducing greenhouse gas emissions, minimising and managing waste, minimising potable water consumption, maximising climate resilience, and achieving sustainable use of resources to the extent reasonably practicable throughout the design, construction, and operation of the Project.</li> </ol>  | Supported with amendment to specify frequency of public reporting. |

Appendix A - Suburban Rail Loop East – Minister’s assessment under Environment Effects Act 1978

| #                            | Environmental Performance Requirement  | Minister’s assessment |
|------------------------------|--|-----------------------|
|                              | 2. <u>Ensure</u> these targets <del>must be</del> are consistent with those documented in the report prepared for the Suburban Rail Loop, Sustainability Objectives and Targets (October 2021) or equivalent. Progress against these targets must be reported against publicly during construction and operation.  |                       |
| SGG 2                        | <p><b>Develop and implement a Sustainability Management Plan</b></p> <p>1. Develop and implement a Sustainability Management Plan that contains measures to meet, as a minimum, the sustainability targets required by SRLA, and the specified ratings under the relevant ISCA and Green Star rating tools.</p> <p>2. <del>The plan should</del> Outline the approach for ongoing measurement, monitoring, reporting and mitigation to achieve sustainability targets and specified ratings <u>in the Sustainability Management Plan.</u></p>  | Supported             |
| SGG 3                        | <p><b>Achieve a Sustainability Rating for Infrastructure</b></p> <p>1. <u>Ensure</u> Main Works tunnel and relevant elements of the Stabling Facility <del>must</del> achieve sustainability outcomes aligned to a minimum rating of “Gold”, under the Infrastructure Sustainability Council (ISC) Infrastructure Sustainability (IS) rating tool version v2.1 or a demonstrated equivalent rating level</p>   | Supported             |
| SGG 4                        | <p><b>Achieve a Sustainability Rating for Stations</b></p> <p>1. <u>Ensure</u> Stations <del>must</del> achieve a Green Star rating of greater than or equal to 5-star, certified using the Green Building Council Australia (GBCA) rating tool Green Star Buildings, applying greater than or equal to version v1A.</p>   | Supported             |
| SGG 5                        | <p><b>Achieve a Sustainability Rating for the Operations Control Centre (<del>NABERS</del>)</b></p> <p>1. <u>Ensure</u> the Stabling Facility Operational Control Centre <del>must</del> achieves a certified <u>National Australian Built Environment Rating System</u> Energy rating of 6-star.</p>  | Supported             |
| SGG 6                        | <p><b>Achieve a Sustainability Rating for construction of the Operations Control Centre (Green Star)</b></p> <p>1. <u>Ensure</u> the Stabling Facility Operational Control Centre <del>must</del> achieves a Green Star rating of greater than or equal to 5-star, certified using the <del>Green Building Council Australia (GBCA)</del> rating tool Green Star Buildings, applying greater than or equal to version v1A.</p>   | Supported             |
| SGG 7                        | <p><b>Achieve an Operational Offset</b></p> <p>1. <u>Ensure</u> the Project <del>must</del> achieves carbon neutral emissions in operations through offsetting residual emissions sources after implementing avoidance and reduction strategies.</p>   | Supported             |
| SGG 8                        | <p><b>Implement opportunities for electrification or lower carbon fuels</b></p> <p>1. Investigate and implement opportunities for electrification of construction plant or the use of alternative lower carbon fuels such as hydrogen and biofuels to the extent reasonably practicable.</p>   | Supported             |
| SGG 9                        | <p><b>Purchase electricity from renewable sources of energy in construction</b></p> <p>1. Investigate and implement opportunities for the purchase of renewable electricity for fixed electric plant, including tunnel boring machines, to the extent reasonably practicable during construction.</p>  | Supported             |
| SGG 10                       | <p><b>Use lower carbon materials</b></p> <p>1. Investigate and implement opportunities for the use of lower carbon materials supportive of Victoria’s circular economy goals to the extent reasonably practicable.</p>   | Supported             |
| <b>Traffic and Transport</b> |  |                       |
| T1                           | <p><b>Develop and implement Transport Management Plan(s) (TMP)</b></p> <p>1. <del>Prior to the commencement of relevant works,</del> Develop and implement TMPs to minimise disruption to affected local land uses, traffic, car parking, public transport (rail, tram and bus), pedestrian and cycle movements and existing public facilities during all stages of construction <u>prior to the commencement of relevant works.</u> A TMP may be split into precincts where appropriate, but <u>each</u> must consider and be coordinated with other precinct TMPs in <del>their</del> <u>its</u> development.</p> <p>2. <u>Ensure</u> TMPs <del>must be are</del> developed in consultation with affected and responsible road authorities, universities, and the Transport Management Liaison Group (refer to EPR T2).</p> <p>3. <del>The TMP must be</del> <u>Informed</u> and supported <del>the</del> <u>TMPs</u> by an appropriate level of transport modelling <del>and that must</del> <u>includes,</u> at a minimum:</p> | Supported             |

| #  | Environmental Performance Requirement  | Minister’s assessment   |
|----|--|---|
|    | <ul style="list-style-type: none"> <li>a) Requirements for maintaining transport capacity and appropriate performance for all travel modes in the peak travel demand periods including pedestrians and cyclists</li> <li>b) Management of any temporary or permanent full or partial traffic lane closures or impacts to lanes and property access</li> <li>c) Requirements for limiting the amount of construction haulage during the peak demand periods</li> <li>d) A monitoring program to assess the effectiveness of the TMPs on all modes of transport</li> <li>e) Where monitoring identifies adverse impacts, implement practicable and appropriate mitigation measures</li> <li>f) Parking measures and controls to minimise impacts on the precincts</li> <li>g) Consideration of construction activities for other relevant private and public major projects occurring concurrently with construction activities for SRL East and potentially impacting modes of transport in the same area.</li> </ul>   |   |
| T2 | <p><b>Establish and convene a Transport Management Liaison Group (TMLG)</b></p> <ul style="list-style-type: none"> <li>1. Establish and convene a TMLG before the commencement of any works that may impact existing roads, paths or public transport infrastructure. The TMLG must include representatives of the Department of Transport (DoT), emergency services, the relevant contractors, relevant transport authorities and relevant local governments.</li> <li>2. <u>Provide for</u> the TMLG <u>to</u> be a forum for exchanging information and the discussion of issues associated with the development of TMPs. The TMLG will be responsible for reviewing and providing feedback on: <ul style="list-style-type: none"> <li>a) TMPs</li> <li>b) Relevant designs and methodologies for monitoring implementation of TMPs and construction traffic monitoring</li> <li>c) Transport modelling and proposed transport network upgrades to mitigate the transport effects of constructing the Project</li> <li>d) Road safety audit reports</li> </ul> </li> <li>3. <u>Provide for</u> the TMLG <u>to should also</u>: <ul style="list-style-type: none"> <li>a) Where construction activities have the potential to significantly impact specific stakeholder or community group facilities, be satisfied that adequate consultation has occurred to inform the TMPs;</li> <li>b) Consider inviting stakeholder representatives to relevant TMLG meetings;</li> <li>c) Where construction activities have the potential to significantly impact specific stakeholder or community group facilities, be satisfied that the TMPs include measures that are consistent with the EPRs and minimise disruption to other transport users so far as reasonably practicable;</li> <li>d) Meet at least monthly until construction works are complete;</li> <li>e) Consider the implications for surface traffic and transport operations, network performance, <u>parking</u> and other transport management implications of the Project.</li> </ul> </li> </ul> | Supported   |
| T3 | <p><b>Manage road transport impacts during construction</b></p> <ul style="list-style-type: none"> <li>1. <u>Ensure</u> the TMP(s) <del>must</del> address the following for road transport management: <ul style="list-style-type: none"> <li>a) <b>Road network management</b> <ul style="list-style-type: none"> <li>i. Develop and implement suitable measures in consultation with emergency services, so that emergency service access is not inhibited due to Project construction activities.</li> <li>ii. Maintain suitable access for deliveries and specialised user access where relevant in proximity to the works. Consultation with the relevant road authority and property owners must be undertaken should access be impacted or cannot be maintained.</li> </ul> </li> </ul> </li> </ul>  | Supported in principle subject to changes to items 3, 4 and 5 in line with my assessment. |

| # | Environmental Performance Requirement  | Minister’s assessment |
|---|--|-----------------------|
|   | <p>iii. Develop and implement waste collection plan(s) in consultation with local governments and private waste collection services before relevant construction works to manage any impacts on waste collection and waste storage.</p> <p>b) <b>Construction trucks</b></p> <p>i. Identify potential routes for construction vehicles travelling to and from all SRL construction work sites, avoiding sensitive receptors and the use of local streets where practicable.</p> <p>ii. Provide construction vehicle staging areas and/or construction methodologies to minimise potential impacts of truck movements on residents and businesses.</p> <p>iii. Provide special arrangements for the delivery or removal of oversize and over mass loads.</p> <p>2. <b>Construction Parking Management Plan(s) (CPMPs)</b> – Prepare CPMPs <del>must be prepared</del> in consultation with the relevant road authority to manage parking in and around the construction sites. Each CPMP must be coordinated with the TMP and outline:</p> <p>i. How impacts on existing users, particularly those with special needs, and the loss of public parking would be minimised through construction.</p> <p>ii. The level of accessibility to loading zones that would be provided to enable the ongoing supply of goods to businesses.</p> <p>iii. How suitable alternative parking would be provided where practicable to replace public, private and commuter parking lost or inaccessible as a result of construction activities and to prevent parking at undesignated locations on local roads.</p> <p>iv. What parking will be provided for construction workers at construction compounds or designated locations where practicable, and include requirements to minimise impacts on local streets, community and commercial facilities. This must include:</p> <p>1) Measures to manage the use of off-street and private car parks by construction workers so that it is by prior agreement with the relevant land manager</p> <p>2) Measures to prevent, to the extent practicable, construction workers parking in on-street spaces, unless it can be demonstrated by car parking surveys there is adequate on-street supply</p> <p>v. Measures to encourage construction workers to travel to / from worksites by means other than private vehicle and/or outside peak times. This should include:</p> <p>1) Provision for on-site tool storage where practicable</p> <p>2) Parking for construction workers must be on-site or nearby</p> <p>3) Consideration given to the use of shuttle buses to ferry workers to and from off-site car parks</p> <p>vi. <del>Outline - H</del>How and when parking would be re-instated (Refer to EPR T7).</p> <p>3. <u>Develop construction management plans that minimise as far as practicable the time needed to temporarily fully or partially close roads and paths.</u></p> <p>4. <u>Widen Kingston Road to a four-lane road along the frontage of the Stabling Facility site between Old Dandenong Road and Nicholas Grove and provide a permanent pedestrian crossing facility between Nicholas Grove and Pietro Road, prior to using access gates on Kingston Road.</u></p> <p>5. <u>Provide a permanent local alternative to accommodate the right turn demand from Old Dandenong Road north approach into Kingston Road, prior to the closure of Old Dandenong Road, that minimises the increase in travel time for that movement.</u></p> |                       |



| #  | Environmental Performance Requirement  | Minister’s assessment   |
|----|--|---|
| T4 | <p><b>Manage public transport impacts during construction</b></p> <p>1. <u>Ensure</u> the TMP(s) <del>must</del> address the following for public transport management:</p> <ul style="list-style-type: none"> <li>a) Before the commencement of relevant works, develop and implement a plan to manage construction work disruptions to railway land and services. The plan should be developed in consultation with DoT, VicTrack, and Metro Trains Melbourne (MTM), as relevant.</li> <li>b) Provide suitable routes for pedestrians to maintain connectivity where access is altered by the Contractor for users of existing railway stations, of tram and bus stops that are relocated or are constructed during works, and around all construction sites including providing Disability Discrimination Act-compliant (DDA) access where practicable.</li> <li>c) Develop and implement measures to minimise disruption to the tram and bus networks and services from the Project’s construction in consultation with the relevant road management authorities, public transport operators and DoT, including but not limited to: <ul style="list-style-type: none"> <li>i. Options to divert bus services impacted by temporary or permanent road closures</li> <li>ii. Tram routes on Burwood Highway and Whitehorse Road</li> <li>iii. Options to prioritise bus services through or along bus routes impacted by construction activities or ground improvements, particularly associated with the Cheltenham, Clayton, Deakin University and Box Hill bus interchanges</li> <li>iv. Bus replacement services for disrupted rail passengers.</li> </ul> </li> </ul> | Supported   |
| T5 | <p><b>Manage active transport impacts during construction</b></p> <p>1. <u>Ensure</u> the TMP(s) <del>must</del> address the following for active transport:</p> <ul style="list-style-type: none"> <li>a) Develop and implement transport management measures in consultation with relevant road management authorities for active transport modes having regard to any relevant guidelines published by relevant road management authorities.</li> <li>b) Maintain connectivity and reasonable performance levels throughout construction for pedestrians and cycle riders in on-road and off-road environments.</li> <li>c) Develop and implement active control and wayfinding information at construction worksite access points to maintain safety by avoiding potential conflicts between trucks and active transport modes including vulnerable users.</li> <li>d) Manage closure or diversion of footpaths to maintain connectivity, connections and provide safe alternative routes for active transport modes in consultation with the relevant road authority.</li> <li>e) In consultation with councils, provide suitable routes for cyclists and pedestrians throughout construction to maintain connectivity for road and shared path users around the construction areas.</li> <li>f) Maintain appropriate pedestrian access to adjoining properties adjacent to or within construction areas.</li> </ul>  | Supported   |
| T6 | <p><b>Design road transport to maintain safety in operation</b></p> <ul style="list-style-type: none"> <li>1. Design all roadworks to relevant design standards to maintain safety of movement in consultation with the relevant road management authorities and TMLG, as required. Designs should be underpinned by appropriate transport analysis with the objective to maximise performance for all modes and the aspirational Movement and Place outcomes, <u>and be in accordance with the SRL East Urban Design Strategy</u>.</li> <li>2. Develop and implement street network designs for each affected street within the Project Land in consultation with the relevant road management authorities that includes: <ul style="list-style-type: none"> <li>a) The design of the road network should reflect the aspirational Movement and Place outcomes for each precinct as well as changed demands as a result of the Project</li> <li>b) Maintaining safe operations through the precincts.</li> </ul> </li> <li>3. Develop and implement a plan for each precinct to manage reinstated parking within the Project Land, in consultation with relevant road management authorities, that:</li> </ul>  | <p>Supported in principle</p> <p>The title of this EPR should also reflect the need for design of the road and broader transport network to minimise impacts and optimise movement and place outcomes.</p> <p>Item 3 should be expanded to include “pick up and drop-off parking” as per the IACs recommendations for further assessment to support pick up and drop off provision.</p> |

| #  | Environmental Performance Requirement  | Minister’s assessment  |
|----|--|--|
|    | <ul style="list-style-type: none"> <li>a) Minimises the permanent loss of parking where possible and determine the optimal parking provision in the area, including prioritising meeting specialised parking needs within the precinct such as emergency services, loading and DDA compliant parking.</li> <li>b) Reduces the risk of overflow parking in local streets</li> <li>c) Provides alternative locations for station commuter parking impacted during construction identified in consultation with relevant stakeholders. If needed this may be provided outside the Project Land.</li> </ul> <p>4. <del>Where vehicle and pedestrian access are altered during construction</del>, Ensure that vehicle and pedestrian access is reinstated appropriately <a href="#">where vehicle and pedestrian access are altered during construction</a> in accordance with relevant road design standards, and they reflect the aspirational Movement and Place outcomes for each precinct as well as changed demands as a result of the Project.</p> <p>5. Collaborate with DoT and Councils to manage the operation of the road network in the vicinity of SRL precincts for all road users. This would encourage appropriate mode of access to the station precincts and to discourage through traffic. This should include reviewing the performance of the wider network so that opportunities to re-distribute through traffic away from station precincts can be pursued <a href="#">and sensitivity testing of different precinct development scenarios</a>.</p>   |  |
| T7 | <p><b>Manage public transport outcomes in operation</b></p> <ul style="list-style-type: none"> <li>1. Design the SRL stations and new bus interchanges to ensure integration with existing and planned future uses so they provide connections to key destinations and existing railway stations and bus interchanges <a href="#">and be in accordance with the SRL East Urban Design Strategy</a>. The design should also provide adequate wayfinding to facilitate passenger transfers.</li> <li>2. <del>In consultation with relevant road management authorities</del>, Implement measures to address pedestrian congestion at and around station entrances where they interface with the precincts, to the extent practicable, <a href="#">in consultation with relevant road management authorities</a>.</li> <li>3. <del>The</del> Develop designs having regard to the following reviews: <ul style="list-style-type: none"> <li>a) Review of bus services in the areas around the SRL stations and the Stabling Facility to be led by DoT in consultation with SRLA.</li> <li>b) Review of tram services in the precincts (where relevant) to be led by DoT in consultation with Yarra Trams and SRLA to optimise the functionality and performance of SRL stations.</li> </ul> </li> </ul>   | <p>Supported</p> <p>SRLA and DoT should be listed as responsible for the implementation of item 3 of this EPR.</p> <p>The heading of this EPR should be “Design and manage..”.</p> |
| T8 | <p><b>Design for safe and connected active transport in operation</b></p> <ul style="list-style-type: none"> <li>1. Actively design for and connect designated cycling routes within the Project Land in consultation with the relevant road management authority, local Council and universities (in respect of University land). Reinstate on-road cycle lanes and cycle parking provisions removed during construction, except where agreed with the relevant road authority. This should reflect the aspirational Movement and Place outcomes for each precinct <a href="#">and be in accordance with the SRL East Urban Design Strategy</a>.</li> <li>2. Review the reinstatement and provision of safe and effective pedestrian access in and around SRL stations as well as bus and tram sites in consultation with the relevant road management authorities and the relevant local government.</li> <li>3. Provide wayfinding information to enhance connectivity for pedestrians, cyclists and public transport users to move to, from, through and within the interchanges and precincts.</li> <li>4. Consult with the TMLG on active transport, where required.</li> <li>5. <a href="#">Undertake an assessment of cycle flows along Normanby Road and pedestrian flows into Monash University beyond Normanby Road to inform:</a> <ul style="list-style-type: none"> <li>a) <a href="#">the need for works within the campus</a></li> <li>b) <a href="#">the need for the Option A entry</a></li> <li>c) <a href="#">the design of Normanby Road/Scenic Boulevard/Howleys Road intersection</a>.</li> </ul> </li> <li>6. <a href="#">Undertake an assessment of the need for any upgrade works to the pedestrian route to the Box Hill Bus Interchange, within the Box Hill central shopping centre, or the need to relocate the bus interchange</a>.</li> </ul> | <p>Supported</p> <p>SRLA should also be listed as responsible for the implementation of this EPR.</p>  |