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 lists the proponent's fifth version of the EPRs that was tabled at the IAC hearing on 12 September 2019 and incorporates recommended changes from the IAC denoted as either 'additions' and/or '~~deletions~~'.

No.	IAC No.	**EPR Version 5 as amended by the IAC** (note no EPR cross-references have been updated to reflect proponent, IAC or Minister's assessment numbered references)	**Minister's assessment**
1. Environmental Management (EMF)			
EMF1	EMF1	Deliver project in general accordance with an Environmental Management System Develop, implement and maintain an Environmental Management System (EMS) that conforms to Australian Standard AS/NZS ISO 14001:2015 Environmental Management Systems – requirements with guidance for use through design, construction and operation of North East Link.	Supported.
EMF2	EMF2	Deliver project in accordance with an Environmental Strategy and Management Plans Prepare and implement an Environmental Strategy, Construction Environmental Management Plan (CEMP), Worksite Environmental Management Plans (WEMPs), Construction Compound Management Plan (CCMP), Operation Environmental Management Plan (OEMP) (operator only) and other plans as required by the Environmental Performance Requirements (EPRs) and in accordance with the Environmental Management Framework (EMF). The Environmental Strategy, CEMP, CCMP, WEMPs and OEMP must be developed in consultation with relevant stakeholders as listed in the EMF and as required by NELP or under any statutory approvals. The CEMP must be prepared with reference to best practice and EPA Victoria Publication 480 Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites.	Supported in principle. Remove reference to Construction Compound Management Plan, as new EPR CC1 is not supported.
EMF3	EMF3	Audit and report on environmental compliance Appoint an Independent Environmental Auditor (IEA) to: • Review the Environmental Strategy, CEMP, CCMP, WEMPs, OEMP and other plans required by the EPRs for compliance with the EMF and the EPRs • Undertake environmental audits of compliance with and implementation of the EPRs and the Environmental Strategy, CEMP, WEMPs, OEMP and other plans required by the EPRs. The IEA must include persons with expertise, based on qualifications and experience, appropriate to allow the roles specified for the IEA in the EMF to be properly carried out; including statutory environmental auditors when necessary. Audits must occur during construction and for ~~two~~ five years after opening of North East Link, or as otherwise agreed with the Minister for Planning. A six monthly summary report must be provided to the Minister for Planning that summarises the findings of audits carried out during the reporting period. A close-out report must be provided to the Minister for Planning at the conclusion of the auditing and reporting period. The summary reports must be made publicly available on a project website for the period of construction and a minimum of five years after opening of North East Link.	Supported in principle. Include an EPA appointed auditor for the assessment of contaminated soil and groundwater given the potential risk of acid sulphate soils, and to ensure that there is no risk of vapour or gas intrusion from former landfills. Remove reference to CCMP.
EMF4	EMF4 NEW	Complaints Management System Prior to the commencement of works a process for recording, managing, and resolving complaints received from affected stakeholders must be developed and implemented. The complaints management arrangements must be consistent with Australian Standard AS/NZS 100002: 2014 Guidelines for Complaints Management in Organisations. The complaints management system must be consistent with the Communications and Community Engagement Plan required under EPR SC2.	Supported.

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2. Aboriginal Heritage (AH)			
AH1	AH1	Comply with the Cultural Heritage Management Plan • Implement and comply with the Cultural Heritage Management Plan (CHMP) approved under the *Aboriginal Heritage Act 2006*.	Supported.
3. Air Quality (AQ)			
AQ1	AQ1	Implement a Dust and Air Quality Management and Monitoring Plan to minimise air quality impacts during construction Prepare and implement a Dust and Air Quality Management and Monitoring Plan(s), in consultation with EPA, which sets out best practice measures and controls to minimise and monitor impacts on air quality during construction. The plan(s) must: • Set out how the project will monitor and control the emission of smoke, dust, fumes, odour and other pollution into the atmosphere during construction using best practice measures with reference to EPA Victoria Publication 480 Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites. ~~and in accordance with the State Environment Protection Policy (Air Quality Management)~~ • Identify the main sources of dust and airborne pollutants, and the location of sensitive land uses relevant to each construction area • Describe the monitoring requirements for each construction areas, including particulate matter monitoring where deemed to be required, and with reference to sensitive receptors and utilising consistent and common monitoring across the project • Describe the air quality triggers for investigation, the mitigation measures, and the processes for implementing appropriate controls.	Supported in principle. Include real-time monitoring of particulate matter to manage dust control in response to adverse weather events and reference to common monitoring equipment.
AQ2	AQ NEW	Construction Vehicle Fleet The construction vehicle fleet (heavy vehicles) for all contractors and sub-contractors must comply at a minimum with the Euro V European emission standards.	Supported.
AQ3	AQ2	Design tunnel ventilation system to meet EPA requirements for air quality Design, construct and operate the permanent tunnel ventilation system to meet the requirements of the State Environment Protection Policy (Air Quality Management) and in accordance with the requirements of the EPA Victoria Works Approval and the EPA Victoria Licence. The design should include provision for retrofitting of tunnel ventilation pollution control equipment if subsequently required.	Supported.
AQ4	AQ3	In-tunnel air quality performance standards Design, construct and operate a tunnel ventilation system to introduce and remove air from the tunnels to meet the in tunnel air quality requirements for carbon monoxide (CO) and for NO2 listed below and in accordance with the EPA Victoria Works Approval and EPA Victoria licence. In tunnel air quality must meet the following CO standards: • Maximum peak CO value of 150 ppm • 15 minute average CO value of 50 ppm • 2-hour average CO value of 25 ppm. The tunnel ventilation system must also be designed and operated so that the tunnel average nitrogen dioxide (NO_2) concentration is less than 0.5 ppm as a rolling 15 minute average. Develop and implement contingency measures to manage in-tunnel air quality in the event of incidents or emergencies. Apply best practice Australian management techniques to minimise impacts on health from in-tunnel exposure to $PM_{2.5}$ and PM_{10}.	Supported.

No.	IAC No.	**EPR Version 5 as amended by the IAC** (note no EPR cross-references have been updated to reflect proponent, IAC or Minister's assessment numbered references)	**Minister's assessment**
AQ5	AQ4	Monitor ambient air quality Develop and undertake an ambient air quality monitoring program in consultation with EPA Victoria to measure the air quality impacts of North East Link during construction and operation. The ambient air quality monitoring program must be undertaken at a minimum of six locations (including a site where the highest increases of air pollution are predicted to occur), unless otherwise agreed by EPA Victoria; include at least one year of monitoring before operation; continue for 5 years after commencement of North East Link operation; and, for the ventilation structures, be in accordance with the EPA Victoria licence. Monitoring results must be assessed against the Environmental Quality Objectives of the State Environment Protection Policy (Ambient Air Quality). Results of the monitoring program are to be made publicly available on a website related to the project, or through EPA Victoria's Air Watch website, on a ~~monthly~~ daily basis.	Supported.
AQ6	AQ5	Monitor compliance of in-tunnel air quality and ventilation structure emissions Monitor the in-tunnel air quality and ventilation structure emissions during operation of the ventilation system to demonstrate compliance with EPR AQ2, EPR AQ3 and the EPA Victoria licence to the satisfaction of EPA Victoria. Report the monitoring results publicly after validation and in accordance with the EPA Victoria licence. If standards outlined in EPR AQ2, EPR AQ3 and the EPA Victoria licence are not met, report to EPA Victoria, investigate the cause of the exceedance, and take remedial action as appropriate to the satisfaction of EPA Victoria.	Supported.
4. Arboriculture (AR)			
AR1	AR1	Develop and implement a Tree Removal Plan Develop and implement a Tree Removal Plan, as part of the CEMP, that identifies all trees within the project boundary and includes: • Trees to be removed or retained as part of the works • Confirmation of the condition and arboricultural value of the amenity trees to be removed • The canopy area of all trees to be removed • The procedure for tree removal that addresses the requirements of EPR FF1, EPR FF2 and EPR FF5. Tree retention must be maximised to the extent practicable through detailed design and selection of construction methods to minimise canopy loss, and in accordance with EPR FF1, including by retaining trees where practicable and minimising potential impacts to trees. This includes the River Red Gum (Caltex Tree) at 39 Bridge Street, Bulleen. Arboricultural assessments are to verify existing details and inform the detailed design, Tree Removal Plan and Tree Canopy Replacement Plan (required by EPR AR3) 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. The Tree Removal Plan must be informed by a pre-construction site assessment 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. Vegetation removal is to occur in a staged manner with removal only occurring once necessary for the current stage of works. The area and number of trees and other vegetation actually removed is to be confirmed through a post-construction assessment.	Supported.
AR2	AR2	Implement a Tree Protection Plan(s) to protect trees to be retained The CEMP must include a Tree Protection Plan(s), which is to be developed and implemented in accordance with Australian Standard AS4970-2009 Protection of Trees on Development Sites. The Tree Protection Plan(s) must provide details of any tree protection actions that will ensure that trees proposed to be retained are adequately protected from the impact of construction or related activities, prior to those works being undertaken. Tree Protection Plans must be prepared based on detailed construction drawings and surveyed tree locations. Trees subject to protection must be monitored for a three ~~two~~-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.	Supported.

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AR3	AR3	Implement a Tree Canopy Replacement Plan Develop and implement a Tree Canopy Replacement Plan to replace the canopy of native vegetation and amenity plantings removed as a result of the project and achieve a net gain in tree canopy cover by 2045. The plan must: • Show the location, size (including canopy spread) and species of replacement trees, in consultation with councils and other relevant land managers • Specify requirements to support the long-term viability of all replacement plantings including appropriate soil requirements, establishment works and ongoing maintenance. • Maintain at least ~~Adopt~~ a ratio of 2:1 for replacement of amenity plantings • Replanting should generally follow the hierarchy of: 1. Within the North East Link Project boundary - as first priority, in locations in close proximity to where trees are removed 2. Outside the Project boundary and within 400m walking catchment from where trees are removed 3. Within Victorian Government and local Council land within the municipalities of Manningham, Boroondara, Nillumbik, Yarra, Whitehorse and Banyule outside the Project boundary 4. Within the wider north east area outside the Project boundary, if required. Note: all locations selected must provide for long-term tree growth • Include understorey plantings in addition to the tree canopy replacement plantings where feasible in consultation with Councils and/or the land manager • Specify requirements for the ongoing responsibility for maintenance and monitoring of the Tree Canopy Replacement Plan The replacement planting should commence as soon as possible and in stages, once tree removal extent is confirmed and suitable replacement sites have been determined in consultation with relevant councils and authorities. A post-construction assessment is to be undertaken to confirm extent of tree removal and that the Tree Canopy Replacement Plan will achieve the net gain target set out above.	Supported in principle. Understorey planting should be considered where canopy replacement is undertaken where feasible within the project area only.
5. Business (B)			
B1	B NEW1	Business disruption mitigation plan Prepare and implement a Business Disruption Mitigation Plan in accordance with the Victorian Small Business Engagement Guidelines (Victorian Small Business Commission) to ensure that business disruption for small businesses, including all businesses in the Bulleen Industrial Precinct, arising from the project is mitigated to the extent practicable.	Supported.
B2	B NEW2	Business Relocation Strategy The State must develop and implement a Business Relocation Strategy to assist businesses directly affected by acquisition. The strategy must be developed in consultation with affected businesses, relevant local Councils, relevant local trader associations, and other affected stakeholders affected, immediately on approval of the EMF. The strategy must include, but not be limited to: • The identification of affected businesses and other relevant stakeholders • Provide a program to support the relocation of businesses including identifying services and support programs. • The appointment of a specialised relocation adviser to support affected business~~es~~ • Procedures to disseminate information, including through the Business Liaison Group (EPR B5) regarding the business relocation strategy and services, key project milestones that may impact on business relocations, and other changes that may affect businesses during the closure of existing operations. • Assistance in the provision of targeted marketing and promotional initiatives to build community and customer awareness for relocated businesses. • Procedures to work with business and landowners to endeavour to reach agreement on the timeframe for possession of the land. • Procedures to engage with businesses and other stakeholders, and through which affected businesses and relevant local trader associations can provide comment or feedback in relation to the relocation strategy and its associated services.	Supported in principle. EPR should nominate which arm of the State is responsible for implementing individual business planning and support. Cross reference to EPR B8 should read EPR B5.

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		NELP should also work with councils to identify and assess the feasibility of alternative location options for displaced businesses. In parallel with the Business Relocation Strategy, the State Government, led by the Department of Transport with appropriate expert advice, must prepare and implement a package of individual business plans prepared with each business in the Bulleen Industrial Precinct that: • understands at a fine-grained level their current operation • desire to relocate or cease operations • business needs for new sites • preliminary specific site identification • practical and reasonable assistance to implement these plans. Note: the requirements of this EPR are in addition to any rights or entitlements available under compulsory acquisition legislation.	
B3	B NEW3	Employee Assistance Strategy The State must 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. The strategy must include, but not be limited to: • The identification of affected businesses and employees • 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). • The identification of relevant government agencies and support services Procedures to disseminate information including through the Business Liaison Group (EPR B5), 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. In parallel with the Employee Assistance Strategy, the State Government, led by the Department of Transport with appropriate expert advice, must prepare and implement a package of individual employee assistance plans prepared with and for each employee who requests it, in consultation with the employer, that: • understands at a fine-grained level their future employment plans • need for training and development • factors that would influence their desire to remain employed with a Bulleen Industrial Precinct business • practical and reasonable assistance to implement their assistance plan.	Supported in principle. EPR should nominate which arm of the State is responsible for implementing individual business planning and support. Cross reference to EPR B8 should read EPR B5.
B4	B2	Minimise disruption to businesses from land acquisition and temporary occupation Minimise disruption to businesses from permanent acquisition or temporary occupation of land to the extent practicable, and work with affected businesses and land owners to endeavour to reach agreement on the terms for possession of the land in accordance with relevant legislation.	Supported in principle. Add text requiring efforts to provide for Bulleen Art and Garden's continued operation from its current site.
B5	B3	Minimise and remedy damage or impacts on third party property and infrastructure Through detailed design and construction, and in consultation with relevant land owners and parties as necessary, design and construct the works to minimise, to the extent practicable, impacts to, and interference with, third party property and infrastructure and to ensure that infrastructure and property is protected during construction and operation. Any damage caused to property or infrastructure as a result of North East Link must be appropriately remedied in consultation with the property or asset owner.	Supported.
B6	B4	Minimise access and amenity impacts on businesses Any reduction in the level of access, amenity or function of any business or commercial facility must be minimised to the extent and duration necessary to carry out the relevant construction related works. Affected business and commercial facilities must be provided with adequate notification of potential impacts and temporary access arrangements. Emergency access must be	Supported in principle. I do not support the IAC's recommended amendment.

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		maintained at all times. Access must be maintained for customers, delivery and waste removal unless there has been a prior arrangement with affected businesses. As well as minimising impacts above, temporary occupation of sites for construction must not: • reduce the viability of nearby businesses • cause adverse amenity impacts to views and amenity experience from nearby businesses • significantly increase travel time from the residential areas to businesses and shopping precincts including Watsonia Village • reduce car parking available to shoppers and traders in shopping areas including Watsonia Village. All permanent access to business and commercial facilities affected by North East Link works is to be reinstated, or relocated as agreed with the relevant property owner, including associated landscaping and reinstatement works, and temporary access arrangements put in place for construction must be removed when relevant construction activities have ceased.	
B7	B5	Protect utility assets Protect or, where required, relocate utility assets to the reasonable satisfaction of the service provider and/or asset owners.	Supported.
B8	B6	Business liaison groups Contractors must participate in the Business Liaison Groups established and managed by the North East Link Project to facilitate business and stakeholder involvement for the construction phase of the project. Participation must include: • Attendance at meetings • Regular and timely reporting of design and construction activities and key project milestones • Provision of advance notice about changes to traffic and parking conditions and the duration of impact • Timely provision of relevant information, including response to issues raised by the group • Regular reporting and monitoring of business community feedback, impacts and discussion of mitigation measures and their effectiveness • Recording, managing and resolving complaints from affected businesses in accordance with the complaints management process required under EPR SC2.	Supported in principle. Cross reference to EPR SC2 should read EPR EMF4.
NEW. Construction Compound Management			
CC1	CC1	**Implement a Construction Compound Management Plan** Prepare and implement a Construction Compound Management Plan (CCMP) in accordance with the requirements of relevant regulations, standards and best practice guidelines. The CCMP must accord with the approved Construction Compound Plan under the Incorporated Document. The CCMP must define roles and responsibilities and include requirements and methods for: • Complying with applicable regulatory requirements • Identifying the nature and extent of construction activity at the particular site including buildings and works • Safe access that minimises impacts on local streets • Storage, handling, transport and disposal of spoil in a manner that protects human health and the environment and is consistent with the transport management plan(s) required by EPR T2. • Design and management of temporary stockpile areas • Minimising impacts and risks to waterways • Avoid and minimise increases to flood risk • Management of the construction compound, including health, safety and environment procedures that address risks associated with construction activities for visitors and general public; contain measures to control exposure in accordance with relevant regulations, standards and best practice guidance and to the requirements of WorkSafe and EPA Victoria; and include method statements detailing monitoring and reporting requirements	Not supported. A construction compound plan will be required by the incorporated document. All other elements of this EPR are addressed by other EPRs.

No.	IAC No.	**EPR Version 5 as amended by the IAC** (note no EPR cross-references have been updated to reflect proponent, IAC or Minister's assessment numbered references)	**Minister's assessment**
6. Contamination and soil (CL)			
CL1	CL1	Implement a Spoil Management Plan Prepare and implement a Spoil Management Plan (SMP) in accordance with relevant regulations, standards and best practice guidelines and with reference to the Spoil Management Strategy contained within the EES (Technical Report O). The SMP must be developed in consultation with the EPA Victoria, any public land managers and in respect of transport of spoil, the relevant road authorities. The SMP must ~~and~~ include processes and measures to manage spoil, ~~The SMP must~~ define roles and responsibilities and include requirements and methods for: • Complying with applicable regulatory requirements • Completing a detailed site investigation (in accordance with Australian Standard AS 4482.1:2005 Guide to the investigation and sampling of sites with potentially contaminated soil and the EPA Victoria Industrial Waste Resource Guidelines) prior to any excavation of potentially contaminated areas to identify location, types and extent of impacts and to characterise spoil to inform spoil and waste management • Identifying the nature and extent of spoil (clean fill and contaminated spoil) • Storage, handling, transport and disposal of spoil in a manner that protects human health and the environment and is consistent with the transport management plan(s) required by EPR T2. This includes requirements and methods for the appropriate treatment/remediation of any contaminated excavated spoil and contaminated residual material left on site • Design and management of temporary stockpile areas • Minimising impacts and risks from disturbance of acid sulfate soils (as per EPR CL2), odour (as per EPR CL3) and vapour and ground gas intrusion (as per EPR CL4) • Transport of spoil along appropriate roads • Management of hazardous substances, including health, safety and environment procedures that address risks associated with exposure to hazardous substances for visitors, ~~and~~ the general public; and local fauna; contain measures to control exposure in accordance with relevant regulations, standards and best practice guidance and to the requirements of WorkSafe and EPA Victoria; and include method statements detailing monitoring and reporting requirements • Identifying where any contaminated or hazardous material is exposed during construction (notably through former landfills, service stations and industrial land) and how it will be made safe for the public and the environment. Beneficial uses of land and National Environment Protection (Assessment of Site Contamination) Measures 2013 guidance on criteria protective of those beneficial uses must be considered for the land uses in these areas. This must include methods for: – Construction of appropriate cover (soil, concrete, geofabric etc) such that no contamination is left exposed at the surface or where it may be readily accessed by the public and local fauna such that it cannot generate runoff or leachate during rain events – Maintenance of the cover – Identification of the nature and depth of the contaminants – Mitigating impacts during sub-surface works in those areas, eg drilling and excavation • Monitoring and reporting • Identifying locations and extent of any prescribed industrial waste (PIW), other waste, and the method for characterising PIW and other waste prior to excavation • Application of the *Environment Protection Act 1970* waste management hierarchy, including: – Ongoing identification and, where practicable, adoption of options for the re-use of spoil – Identification of options for management of spoil – Identifying suitable sites for disposal of any waste. This includes identifying contingency arrangements for management of waste, where required, to address any identified capacity issues associated with the licensed landfill's ability to receive PIW and other waste • In areas used for temporary construction works, and the construction of surface water management works, contamination attributable to the project must be appropriately remediated in consultation with the relevant land manager.	Supported in principle. Include need to confirm waste industry capacity for contaminated spoil material.

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CL2	CL2	Minimise impacts from disturbance of acid sulfate soil The SMP referenced in EPR CL1 must include requirements and methods to minimise impacts from disturbance of acid sulfate soil, including but not limited to: • Characterising acid sulfate soil and rock prior to excavation • Developing appropriate stockpile areas including lining, covering and runoff collection to prevent release of acid to the environment, including wetlands, and impact to human health • Identifying suitable sites for re-use management or disposal of acid sulfate soil and rock • Preventing oxidation that could lead to acid formation if possible through cover and/or scheduling practices, ie ensuring acid sulfate soil and rock is not left in stockpiles for any length of time and/or addition of neutralising compounds. Requirements and methods must be in accordance with the Industrial Waste Management Policy (Waste Acid Sulfate Soils), EPA Victoria Publication 655.1 Acid Sulfate Soil and Rock, and the Department of Sustainability and Environment's Victorian Best Practice Guidelines for Assessing and Managing Coastal Acid Sulfate Soil.	Supported.
CL3	CL3	Minimise odour impacts during spoil management The SMP referenced in EPR CL1 must include requirements and methods for odour management (in accordance with EPA Victoria requirements) during the excavation, stockpiling and transportation of contaminated material including: • Identifying the areas of contamination that may pose an odour risk • Monitoring of the excavated material for possible odour risk • Management measures to minimise odour.	Supported.
CL4	CL4	Minimise risks from vapour and ground gas intrusion Relevant North East Link sections must be designed and constructed to prevent ingress of vapours and gases associated with any construction that interfaces with landfill sites or contaminated areas. The SMP referenced in EPR CL1 must include requirements for assessment, monitoring and management of intrusive vapour including potentially toxic, flammable or explosive conditions in enclosed spaces or other impacts on human health and the environment. The plan must address vapour risks associated with excavation of impacted soils, extraction of impacted groundwater, open excavations and stockpiles and gases associated with landfills. This must include, where relevant: • Securing of the excavation and stockpile area from the public and signage warning of open excavations • Monitoring of vapours and odours while excavations are open and stockpiles remain onsite • Mitigation measures to prevent fugitive releases of vapours and gasses during construction.	Supported.
CL5	CL5	Manage chemicals, fuels and hazardous materials The CEMP and OEMP must include requirements for management of chemicals, fuels and hazardous materials including: • Minimise chemical and fuel storage on site and store hazardous materials and dangerous goods in accordance with the relevant guidelines and requirements • Comply with the Victorian WorkCover Authority and Australian Standard AS1940 Storage Handling of Flammable and Combustible Liquids and EPA Victoria publications 480 Environmental Guidelines for Major Construction Sites and 1698 Liquid Storage and Handling Guidelines • Develop and implement management measures for hazardous materials and dangerous substances, including: – Creating and maintaining a dangerous goods register – Disposing of any hazardous materials, including asbestos, in accordance with Industrial Waste Management Policies, regulations and relevant guidelines – Implementing requirements for the installation of bunds and precautions to reduce the risk of spills • Contingency and emergency response procedures to handle fuel and chemical spills, including availability of on-site hydrocarbon spill kits.	Supported.

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CL6	CL6	Minimise contamination risks during operation The OEMP must include requirements and methods for minimising contamination risks during operation and maintenance of North East Link including: • Maintaining relevant controls and preventing impacts during operation from contaminated material, odour, vapour and gas • Maintaining controls implemented as part of North East Link to make any known areas of contamination or hazardous material that were exposed during construction (notably through former landfills) safe for the public and the environment • Mitigating impacts during sub-surface works in any identified areas of contamination or hazardous materials, eg drilling and excavation • Implementing contingency measures, where required, to address any potential contamination, odour, vapour or gas impacts or incidents. • Monitoring any potential mobilisation of contaminants towards ecological and recreational assets including the Yarra River and wetlands and must include a groundwater monitoring program, intervention trigger levels and mitigation actions.	Supported.
7. Flora and Fauna (FF)			
FF1	FF1	Avoid and ~~M~~minimise impacts on fauna and flora The CEMP must include requirements and methods for avoiding, where practicable, and otherwise minimising to the extent practicable for: • Managing fauna that may be displaced due to vegetation removal or encountered on site during construction works in compliance with the *Wildlife Act 1975* and in consultation with public land managers where relevant • Complying with the *Fisheries Act 1995* • Undertaking pre-clearing surveys and inspections to confirm the on-site location of fauna immediately prior to habitat removal or, where relevant, works on waterways, and to assist fauna to safety as necessary • Prepare a Kangaroo Management Plan for the Simpsons Barracks and M80 interchange in consultation with DELWP • Contingency and reporting procedures for the event that a listed threatened species is identified in order to mitigate any potential for significant impacts on the listed threatened species. • Protection of all vegetation inside and adjacent to the Project area that is not required to be removed Surveys, inspections and management actions must be undertaken by a qualified wildlife ecologist or aquatic ecologist with all necessary authorisations obtained prior to removal of fauna habitat. The CEMP must be prepared in consultation with relevant land managers. A copy of the approved CEMP must be provided to relevant land managers and each relevant municipal Council.	Supported.
FF2	FF2	Minimise and offset native vegetation removal Through detailed design, avoid where practicable, and otherwise minimise the removal of native vegetation and fauna habitat and impacts on habitat connectivity, in particular in relation to *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* or *Flora and Fauna Guarantee Act 1988* listed threatened species. This must include minimising removal of Matted Flax Lily, the locally endemic Studley Park Gum and the loss of potential foraging habitat for the Powerful Owl, Swift Parrot and Grey-headed Flying Fox. Key areas for minimisation efforts must include Simpson Barracks, Yarra Bend, Trinity Grammar wetlands, Banksia Parkland, River Gum Walk Creek Bend Reserve and the Koonung Creek valley. The CEMP must include requirements for protection of native vegetation and listed species, including establishment of no-go-zones to protect vegetation and habitat to be retained and Tree Protection Plan(s) as required by EPR AR2. No-go-zones must also be established for: • The Grey-headed Flying fox Campsite within the Yarra Bend Park • Bolin Bolin Billabong • Simpson Barracks	Supported in principle. Remove Simpson Barracks and trees at/adjacent to Macleod Railway Station in the list of 'no-go zones'.

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		• The Plains Grassy Woodland community between Enterprise Drive and the M80 Ring Road in Bundoora • The portion of 49 Greenaway Street, Bulleen (former Drive-in) heavily vegetated with trees along the Yarra River • Trees at and adjacent to Macleod Station (to protect habitat for Swift Parrots) • Surface impacts in the Banyule Flats and Warringal Parklands and the Heide Museum of Modern Art. Every effort must be made to avoid ecological impacts in other locations that are known to provide high habitat value for significant fauna species. Where the removal of native vegetation is unavoidable the project must meet the offset requirements of the Guidelines for the removal, destruction or lopping of native vegetation, DELWP December 2017 except as otherwise agreed to by the Secretary to DELWP. Where appropriate for the landscape and project location, tree replacement (as required by EPR AR3) and landscaping is to use locally indigenous species (utilising seed collected from species within the project boundary where appropriate and practical), which are suited to the landscape profile and setting being revegetated, and seek to maximise habitat value and connectivity for native fauna. Where practicable and appropriate for the landscape and project location, best practice measures must be applied to retain and reinstate topsoil to support growing conditions for native species. Where topsoil cannot be retained or reused for North East Link, alternative opportunities for reuse must be explored. ~~Where direct impacts on Studley Park Gum occur, a Studley Park Gum Management Framework should be developed and corresponding management plan must be developed and implemented.~~	
FF3	FF3	Avoid introduction or spread of weeds and pathogens The CEMP must include measures to avoid the spread or introduction of weeds and pathogens during construction, including vehicle and equipment hygiene.	Supported.
FF4	FF4	Protect aquatic habitat In consultation with public land managers and Melbourne Water where relevant, d~~D~~esign, locate and construct structures to minimise short and long term adverse impacts on riparian, riverbed and aquatic habitat in waterways and wetlands, including billabongs. The CEMP must contain and require implementation of measures to minimise adverse impacts from construction activities on riparian, riverbed and aquatic habitat and aquatic fauna connectivity.	Supported.
FF5	FF5	Obtain Flora and Fauna Guarantee Act 1988 permits Prior to construction, a ~~A~~ permit(s) must be obtained to take and destroy flora species protected under *the Flora and Fauna Guarantee Act 1988.*	Supported.
FF6	FF6	Implement a G~~g~~roundwater D~~d~~ependent E~~e~~cosystem M~~m~~onitoring and M~~m~~itigation P~~p~~lan Prepare and implement a Groundwater Dependent Ecosystem Monitoring and Mitigation Plan to the satisfaction of the relevant water authorities. The Groundwater Dependent Ecosystem Monitoring and Mitigation Plan must be informed by the groundwater modelling and groundwater monitoring required by EPR GW1 and EPR GW2, and must include (but not be limited to): • Identification of Groundwater Dependent Ecosystems (GDEs) predicted to be impacted prior to construction commencing, including Bolin Bolin Billabong • Details of the monitoring procedures and program for each relevant GDEs including monitoring periods appropriate to each GDE • Specific procedures to monitor groundwater levels at GDE's predicted to be impacted including monitoring as close as possible to the GDE (considering ecological and access constraints) and for aquatic GDEs monitoring the surface water levels and quality as appropriate, including Bolin Bolin Billabong. These procedures should include: – Groundwater monitoring of the alluvium by specific monitoring bores as close a possible to billabongs must be undertaken before, during and after construction. – Monitoring of water levels and water quality in billabongs must be undertaken before, during and after construction. – Monitoring of water balance input and output volumes to and from billabongs must be undertaken before, during and after construction.	Supported.

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		• Identification of relevant monitoring and management programs by Melbourne Water or other authorities and how these are referenced in the Groundwater Dependent Ecosystem Monitoring and Mitigation Plan • Measures to mitigate monitored changes in water levels and quality that could impact the billabongs or other GDEs, which take into account the natural variability • Where the survival of Groundwater Dependent Large Trees not requiring removal is predicted to be affected by groundwater drawdown during construction or operation based on groundwater modelling outputs, include measures to maintain the health of large trees • In relation to any trees unlikely to survive during operation as a consequence of groundwater drawdown, processes for offsets to be obtained in accordance with EPR FF2. • The process for review of the Plan, including how the groundwater modelling and monitoring under EPR GW1 and EPR GW2 will be considered and the GDE monitoring program and periods subsequently reviewed.	
FF7	FF7	Implement a salvage and translocation plan for Matted Flax-lily Where direct impacts on Matted Flax-lily occur, a salvage and translocation plan must be developed and implemented to the satisfaction of the Department of Environment, Land, Water and Planning and the Commonwealth Department of Environment and Energy, prior to the commencement of the Project.	Supported. Timing should be prior to construction.
FF8	FF8	Minimise intense noise and vibration impacts on Australian Grayling The CEMP must include and require implementation of reasonable measures to avoid and mitigate intense noise and vibration impacts in or near the Yarra River (eg from activities such as pile driving and similar activities). This must include, to the extent practicable: • Selection of work methods to minimise noise and vibration • Avoiding activities that may generate intense noise and vibration and impact on the Australian Grayling during critical migration or breeding periods (March to June, September to November) as defined within the National Recovery Plan for the Australian Grayling *Prototroctes maraena* (Backhouse, G, Jackson, J & O'Connor, J 2008) • Management and monitoring of noise and vibration in accordance with the CNVMP (EPR NV4).	Supported.
FF9	FF9	Protect fauna habitat values in existing waterbodies that are modified for drainage purposes Where existing waterbodies within or near the project boundary are to be modified for drainage purposes (for example Simpson's Lake, billabongs, and the southernmost waterbody in the Freeway golf course), the CEMP must include and require implementation of measures to minimise impacts on waterbirds and other fauna that use the wetlands including: • Retain dead and alive standing trees and other vegetation in and surrounding the waterbody • As far as practicable, undertake activities outside the typical nesting period for waterbirds (typically Sept to Jan) • Minimise the construction period to the extent practicable and refill the wetlands post construction if they have been drained. • Include gross pollutant traps and water quality treatment measures to the satisfaction of the relevant waterway manager.	Supported.
FF10	NEW FF10	Studley Park Gum Mitigation To mitigate impacts on the Studley Park Gum, a Studley Park Gum Management Framework must be developed and corresponding management plan must be developed and implemented in consultation with DELWP.	Supported.
8. Ground Movement (GM)			
GM1	GM1	Design and construction to be informed by a geotechnical model and assessment Develop and maintain geological and groundwater model(s) (as per EPR GW1) to inform tunnel and trench design and the construction techniques to be applied for the various geological and groundwater conditions. The model(s) are to: • Identify sensitive receptors that may be impacted by ground movement • Inform monitoring of ground movement and ground water levels prior to construction to	Supported.

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		identify pre-existing movement • Inform tunnel design and the construction techniques to be applied for the various geological and groundwater conditions • Assess potential drawdown and identify trigger levels for implementing additional mitigation measures to minimise potential primary consolidation settlement • Assess potential ground movement from excavation and identify trigger levels for implementing additional mitigation measures to minimise potential ground movement.	
GM2	GM2	Implement a Ground Movement Plan to manage ground movement impacts Develop and implement a Ground Movement Plan(s). The Ground Movement Plan must be informed by EPR GM1 and EPR GW1 (predictive model) and: • Address the location of structures/assets which may be susceptible to damage by ground movement • Identify baseline ground movement monitoring prior to construction. A baseline monitoring report is to be compiled summarising the results of the baseline surveys undertaken and included in the plan • Identify appropriate ground movement impact acceptability criteria • Identify appropriate mitigation measures should the geotechnical model (EPR GM1), predictive groundwater model (EPR GW1), or subsequent monitoring program indicate acceptability criteria may not be met • Establish ground movement monitoring requirements for the area surrounding proposed project works to measure ground movement consistency with the anticipated ground movement in the predictive model.	Supported.
GM3	GM3	Carry out Condition surveys for potentially affected property and infrastructure Conduct condition survey(s) of property and infrastructure predicted to be affected by ground movement based on the results of the geological and groundwater model (EPR GM1) or, where a property owner reasonably expects to be potentially affected and has requested a pre-construction condition survey. Develop and maintain a database of pre-construction and as-built condition information for each potentially affected structure identified as being in an area susceptible to damage (see EPR GM1) or where a property owner has requested a pre-construction condition survey, specifically including: • A list of identified structures/assets which may be susceptible to damage resulting from ground movement resulting from project works • Results of pre-construction condition surveys of structures, pavements, significant utilities and parklands to establish baseline conditions and potential vulnerabilities • Records of consultation with land owners in relation to the condition surveys • Post-construction stage condition surveys conducted, where required, to ascertain if any damage has been caused as a result of project works. Pre- and post-condition assessments must be proactively shared with the property owner. All stakeholder engagement activities must be undertaken in accordance with the Communications and Community Engagement Plan (see EPR SC2).	Supported.
GM4	GM4	Rectify damage to properties and assets impacted by ground movement or settlement For properties and assets (including natural landscapes and parklands) damaged by ground movement caused by the project, undertake necessary repair works or other actions as agreed with the relevant property or asset owner (or land manager). For places listed on the Victorian Heritage Register, consultation with Heritage Victoria must be undertaken. Establish an independent mediation process for the assessment of claims for property and asset damage that cannot be agreed between the Project and the property or asset owner.	Supported.
9. Groundwater (GW)			
GW1	GW1	Design and construction to be informed by a groundwater model Develop a predictive and numerical groundwater model in consultation with EPA Victoria, informed by field investigations, to predict changes in groundwater levels and flow and quality, as they are affected by construction, and develop mitigation strategies, as per EPR GM1. The groundwater model must be of a standard that is at least comparable to the modelling	Supported in principle. The groundwater model should be developed in a process that involves independent review by a

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		documented within the Report on Additional Groundwater Modelling prepared by GHD and dated July 2019 and must be updated to take account of any changes to construction techniques or operational design features, and additional monitoring data from EPR GW2. The groundwater model must be developed with a process that involves independent review by the EPA appointed Independent Environmental Auditor consistent with the Australian Groundwater Modelling Guidelines (June 2012).	multi-disciplinary independent environmental auditor, not limited to an EPA appointed independent environmental auditor.
GW2	GW2	Monitor groundwater Develop and implement a pre-construction, and construction groundwater monitoring program to: • Establish baseline water level and quality conditions throughout the study area, including the ~~identification (where possible)~~ delineation (to the extent practicable) of those portions of existing contaminant plume(s) that may be impacted by the project ~~to the extent required to manage groundwater impacts to acceptable levels~~ • Calibrate the predictive model prior to commencement of construction, manage construction activities, and verify the model predictions Assess the adequacy of proposed design and construction methods, and where required, identify and implement any additional measures required to mitigate impacts from changes in groundwater levels, flow and quality. A post-construction groundwater monitoring program must be developed and implemented to: • Confirm the acceptability of resultant water quality and water level recovery (and potential mounding) as predicted by the numerical groundwater model. Acceptability is to be assessed with consideration to the Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (as required by EPR FF6) and other identified beneficial uses of groundwater • Confirm the effectiveness of applied measures as identified in the Groundwater Management Plan (refer EPR GW4) and if required, identify and implement contingency measures to restore groundwater to an acceptable level. The duration of post-construction monitoring must be a minimum of two years or until acceptable restoration of groundwater and a stable hydrogeological regime has been confirmed by the Independent Environmental Auditor, in consultation with EPA Victoria and Melbourne Water. The pre-construction, construction and post-construction monitoring program(s) must be developed in consultation with EPA Victoria and Melbourne Water, and be consistent with EPA Victoria Publication 668 Hydrogeological assessment groundwater quality guidelines, EPA Victoria Publication 669 Groundwater Sampling Guidelines, and the State Environment Protection Policy (Waters).	Supported.
GW3	GW3	Minimise changes to groundwater levels through tunnel and trench drainage design and construction methods Design long term tunnel and trench drainage and adopt construction methods which minimise changes to groundwater levels during construction and operation to manage, mitigate and/or minimise to the extent practicable: • Requirements for groundwater management and disposal • Mobilisation of contaminated groundwater • Dewatering and potential impacts of acid sulfate soils, including both unconsolidated sediments and lithified sedimentary rock • Potential impacts on waterways and potential groundwater dependent ecosystems, including terrestrial ecosystems • Any other adverse impacts of groundwater level changes such as subsidence. Design and implement engineering control measures and/or ground treatment to limit to the extent practicable groundwater inflow and groundwater drawdown during excavation, construction and operation of tunnels and trenches, cross passages and subsurface excavations. The Groundwater Management Plan (as required by EPR GW4) must contain measures and/or controls to minimise groundwater inflow during construction to excavations and groundwater drawdown, including contingency measures should monitoring indicate adverse impacts are occurring. These must include measures to: • Manage, mitigate and minimise to the extent practicable reduction or loss of groundwater discharge to waterways or loss of water availability for terrestrial ecosystems • Manage, mitigate and minimise the oxidation of acid sulfate soil materials and acidification of	Supported.

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		groundwater • Manage, mitigate and minimise any movement of contamination that is identified • Manage, mitigate and minimise impacts on beneficial uses and risk of vapour intrusion • Ensure that groundwater seepage is collected, treated and disposed during construction in accordance with the *Environment Protection Act 1970* waste management hierarchy and EPA Victoria requirements. Obtain a trade waste agreement from the relevant water authority where disposal to sewer is required. Groundwater discharge to waterways must be approved by the relevant authority prior to discharges occurring and meet the State Environment Protection Policy (Waters) requirements.	
GW4	GW4	Implement a Groundwater Management Plan to Protect groundwater quality and manage groundwater interception A Groundwater Management Plan must be developed in consultation with EPA Victoria and Melbourne Water and implemented to protect groundwater quality and manage interception of groundwater including documenting the measures required to achieve EPR GW2 and EPR GW3. The Groundwater Management Plan must be informed by the groundwater modelling required by EPR GW1 and updated where required in response to modelling results, new information resulting from the monitoring programs required by GW2 and assessment of the adequacy or effectiveness of controls. The Groundwater Management Plan must include requirements and construction methods to protect groundwater quality including where appropriate, but not limited to: • Selection and use of sealing products, caulking products, lubricating products and chemical grouts during construction that will not diminish the groundwater quality • Selection and use of fluids for artificial recharge activities that will not diminish the groundwater quality • Requirements to ensure compatibility of construction material with groundwater quality to provide long term durability for infrastructure design life • Design and development of drainage infrastructure that minimises clogging and maintenance risks from dissolved constituents in groundwater precipitating out of solution • Measures to assess, remove and dispose of contaminated groundwater and impacted soils associated with excavation and construction • Reinjection borefields for hydraulic control of drawdowns (or contaminated groundwater plumes) • Remedial grouting. The Groundwater Management Plan must include requirements and methods for management of groundwater interception during construction including where appropriate, but not limited to: • Identification, treatment, disposal and handling of contaminated seepage water and/or slurries including vapours in accordance with relevant legislation and guidelines • Assessment of barrier/damming effects • Subsidence management • Dewatering and potential impacts on acid sulfate soils, including both unconsolidated sediments and lithified sedimentary rock • Protection of waterways and potential groundwater dependent ecosystems • Management of unexpected contaminated groundwater eg using treatments, hydraulic controls, grouting and exclusion methods • Management of possible impact to groundwater monitoring and management by third parties of existing contamination plumes • Contingency actions when interventions are required. The Groundwater Management Plan must also include a review to confirm the status of potential use of extraction bores within the estimated construction drawdown area. Where required, measures must be developed and implemented, to the satisfaction of Southern Rural Water, to maintain water supply to identified, impacted groundwater users.	Supported.
GW5	GW5	Manage groundwater during operation Prepare as part of the OEMP and implement measures for management, monitoring, reuse where possible and disposal of groundwater inflows during operation that comply with relevant legislation and guidelines (and include provisions of EPR FF6 where relevant), including but not	Supported.

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		limited to: • State Environment Protection Policy (Waters) • State Environment Protection Policy (Prevention and Management of Contaminated Land) • *Water Act 1989* and Water Industry Regulations 2006 • *Occupational Health and Safety Act 2004* and Occupational Health and Safety Regulations 2017. The OEMP must include contingency measures and emergency response plans if unexpected groundwater contamination is encountered and requires disposal. A trade waste agreement from the relevant water authority must be obtained in accordance with regulatory requirements, where disposal to sewer is proposed. Approval from EPA and the relevant water authority (as required) must be obtained in accordance with regulatory requires, where discharge to waterways is proposed.	
10. Historical Heritage (HH)			
HH1	HH1	Design and construct to minimise impacts on heritage Undertake detailed design of the permanent and temporary works to minimise impacts with capacity to ~~where practicable~~, on the cultural heritage values of heritage places in consultation with Heritage Victoria and/or local councils (as applicable). Prior to commencement of works with capacity to ~~that~~ affect heritage places, structures or features, directly or indirectly, develop and implement in consultation with the relevant heritage authority: • Physical protection measures for potentially affected heritage places, structures or features as appropriate • Where required, a methodology for any required dismantling, storage or reinstatement of heritage fabric (with reference to the ICOMOS Burra Charter 2013) and works to ensure an appropriate setting if relocation is required.	Supported in principle. Include 'minimising impacts to the greatest extent practicable' and remove 'with capacity to' in the first sentence.
HH2	HH2	Implement an Archaeological Management Plan to avoid and minimise impacts on historic archaeological sites and values Develop and implement an Archaeological Management Plan in consultation with Heritage Victoria detailing measures to avoid, minimise, mitigate and manage disturbance of archaeological sites and values affected by the project. Undertake 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. The Archaeological Management Plan must include: • Requirements for background historical research, excavation methodology, research design, reporting and artefact management, artefact conservation, and analysis • Protocols for managing previously unidentified historical archaeological sites discovered during the works.	Supported.
HH3	HH3	Monitor condition of heritage sites Undertake pre-construction and post construction condition survey(s) in accordance with EPR GM3 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 impacts on heritage places during construction must be implemented in accordance with the Construction Noise and Vibration Management Plan required by EPR NV4 and Groundwater Management Plan required by EPR GW4. Report the results of monitoring for heritage places to the Executive Director, Heritage Victoria and take remedial action, if required, to the satisfaction of the Executive Director, Heritage Victoria.	Supported.
HH4	HH4	Undertake archival photographic recording Prior to construction, undertake archival photographic recording of all heritage places or trees demolished or modified by the works in accordance with Heritage Victoria's specification for the archival photographic recording of heritage places or alternative applicable Heritage Victoria guidelines as updated, to the satisfaction of the Executive Director, Heritage Victoria.	Supported in principle. Include reference to the setting of historic heritage places or trees.

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HH5	HH5	Minimise impacts on heritage trees Comply with any requirements of Heritage Victoria if the trees that are to be impacted by the project are listed on the Victorian Heritage Register.	Supported.
11. Land Use Planning (LP)			
LP1	LP1	Minimise land use impacts The project must be designed and constructed to: • Minimise the construction and design footprint and avoid, or, where avoidance is not feasible, minimise to the greatest extent possible ~~to the extent practicable~~, any temporary and permanent impacts on the following land uses: – Parks and reserves including passive and active open space and pathways – Significant landscapes including those around the Yarra River – Other sensitive land uses such as educational facilities – Sport, r~~R~~ecreational and community facilities – Residential properties – Commercial and industrial sites. – Sites of identified cultural or social value including Heide Museum of Modern Art and Bulleen Art and Garden. • Consolidate or minimise the fragmentation of, and provide access to, residual land parcels to support future viable land use to the extent practicable. • ~~Adopt an integrated approach to the Manningham interchange which supports viable future land uses (such as commercial and industrial) and includes maximising the developable area at surface level to the extent practicable.~~	Supported.
LP2	LP2	Minimise impacts from location of new services and utilities New above ground services and utility infrastructure are to be located in a way that minimises impacts to existing residential areas, public open space and recreational facilities. This must include considering options to co-locate infrastructure where practicable.	Supported.
LP3	LP3	Minimise inconsistency with strategic land use plans Design and development of the ~~The project must avoid and minimise, to the extent practicable, impacts on residential, commercial, industrial, open space and community facility land uses from project development and operations which are inconsistent with strategic land use policy. Development of~~ the project must have regard to relevant urban design and ~~strategic~~ land use strategies, plans and frameworks including the Yarra Strategic Plan and Draft Yarra River Bulleen Precinct Land Use Framework Plan when approved or any superseding document. C~~c~~onsultation must occur with land managers and~~/or~~ authorities responsible for the implementation of the relevant strategic land use plans and policies in preparing Urban Design Framework Plans required by the Incorporated Document. An integrated approach must be adopted to the Manningham Interchange in consultation with Manningham City Council which supports viable future land uses (such as commercial and industrial) and includes maximising the developable area at surface level to the extent practicable in addition to requirements for the Urban Design Framework Plan for this interchange to be approved under the Incorporated Document. The project must avoid and minimise impacts on residential, commercial, industrial, open space, culturally valued and community facility land uses from project development and operations which would be inconsistent with strategic land use policies.	Supported in principle. Amend references to urban design framework plans to reflect their inclusion in the UDS.
LP4	LP4	Minimise overshadowing from noise walls and elevated structures and overlooking from elevated structures Overshadowing from elevated structures and noise walls to residential properties (including existing solar panels), community facilities, open spaces, waterways and valuable natural habitats must be minimised through detailed design. Consultation must occur with directly affected property owners and occupiers to formulate acceptable parameters for these structures including location, design and materials. Unless with the consent of an affected landowner or in exceptional circumstances, the extent of additional overshadowing of residential properties from non transparent structures:	Supported in principle. Clarify the formulation of acceptable parameters for structures will be informed by consultation with directly affected property owners and occupiers.

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		• Should be no greater than the existing shadowing of secluded private open spaces associated with residential properties cast by existing structures including existing noise walls and other structures (e.g. elevated walkways) between the hours of 9:00 am to 3:00 pm as measured on September 22. • If additional overshadowing occurs it must not be greater than 50% of the secluded private open space or 40 sqm, whichever is the greater, between the hours of 9:00 am to 3:00 pm as measured on September 22. Overlooking from elevated structures, especially within a distance of 15 metres to secluded open space and habitable room windows of residential properties, must be minimised through detailed design as far practicable. Consultation must occur with directly affected property owners and occupiers to formulate acceptable parameters, designs and materials for these structures.	
LP5	LP NEW1	Open Space Replacement The Proponent and t~~T~~he State must replace all public open space permanently required for the Project on a like-for-like basis by the commencement of operation of the Project. ~~develop and implement a strategy with the objective to replace public open space permanently required for the Project. The strategy should~~ The Proponent in conjunction with the State must develop and implement a Relocation and Replacement Plan which must include: • The replacement of all land used for parkland, reserves, passive open space and active open space including recreation facilities (where not addressed in SC4). • Priorities for the acquisition of land within the Public Acquisition Overlay or private land in key strategic locations and a program identifying the timing of the acquisition or re-purposing of the identified new public open space sites. – • An assessment of the suitability of the replacement land for public open space by reference to relevant strategic document–s, including the Yarra Strategic Plan (when released), reference to the Yarra River Bulleen Draft Land Use Framework Plan (or final document) and policies within relevant local planning schemes • Functional concept plans for the future use of each site, prepared with input from relevant councils, land managers, public asset owners and stakeholders (in the case of formal sporting uses being replaced) • A program identifying the timing and scope of works to be undertaken to provide appropriate or upgraded facilities to provide like-for-like facilities or to meet enhanced user needs beyond like-for-like status. This must identify temporary and permanent land use allocation. Identification of committed proposals to be provided by the Project to enhance the natural values of open space to be provided for conservation or passive recreation, including tree planting works, river bank improvements, water management upgrades and the like and complementary proposals to be achieved by others for this land. ~~The definition of the public open space required for the Project (noting that this will not include land within a Road Zone).~~ ~~The identification of options to acquire private land or re-purpose land in public ownership for use as public open space. This will include:~~ ~~1. The assessment of the suitability of the land for public open space~~ ~~2. A general plan for the future use of the land (e.g. active open space, conservation land etc.)~~ ~~A program identifying the timing of the acquisition or re-purposing of the identified new public open space sites and the process to be used to ensure fair procedures with the aim of completing the acquisition/re-purposing and development program by the completion of construction of the Project.~~	Supported in principle. The EPR is to be redrafted for clarity to direct the development and implementation of an open space relocation and replacement plan. The plan must document the underlying philosophy of like-for-like replacement. The plan should clearly set out the process for assessing, selecting and acquiring suitable replacement open space. Land zoned Road Zone must be excluded from the replacement calculation. The proponent is to exclude the proposed land bridges that are part of the access network when providing like-for-like replacement of open space.
12. Landscape and Visual (LV)			
LV1	LV1	Design to be in accordance with the Urban Design Strategy Urban Design and Landscape Plans must be developed and implemented for permanent above-ground buildings or structures (excluding preparatory buildings and works) in accordance with the North East Link Project – Incorporated Document. The design response must be in accordance with the North East Link Urban Design Strategy and, to the extent practicable: • Avoid or minimise landscape and visual, overlooking, and shading (with reference to EPR LP4) impacts in extent, duration and intensity • Maximise opportunities for enhancement of public and private receptors including public	Supported in principle. Amend references to urban design framework plans to reflect their inclusion in the UDS.

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		amenity, open space and facilities, and heritage places by ~~resulting from~~ the project including by facilitating value add/capture opportunities. • Respond to opportunities and constraints identified in an Urban Design Framework Plan for key interchanges, activity centres and interfaces identified in the Incorporated Document (where applicable). • Identify residential areas with the potential for high visual impact and develop targeted design options to avoid or minimise amenity impacts on these areas, including as a result of the proposed noise walls. • Detailed design to ensure landmark elements balance visual impact with minimal overshadowing.	
LV2	LV2	Minimise landscape and visual impacts during construction Temporary and construction works ~~are to~~ must be located designed and carried out in accordance with the Construction Compound Plan to be approved under the Incorporated Document and the Urban Design Strategy guidance on using design to help manage construction impacts. Areas disturbed by temporary and construction works must ~~are to~~ be reinstated ~~in consultation with the~~ to the satisfaction of the relevant land manager, waterway manager and any relevant public asset owners. Design of acoustic sheds used during construction, to contribute to the image and identity of the area. Develop and implement measures to use temporary landscaping, features or structures (including viewing portals) 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. Implement landscaping enhancement including early tree planting (as part of permanent works) prior to construction works commencing, where practicable.	Supported.
LV3	LV3	Minimise construction lighting impacts Develop and implement effective measures to minimise light spillage and glare during construction including from vehicles and equipment to protect the amenity of adjacent neighbourhoods, parks, community facilities and any known significant native fauna habitat to the extent practicable. Such measures must have regard to the content of guidelines or Australian Standards pertaining to outdoor lighting and best available technology.	Supported.
LV4	LV4	Minimise operation lighting impacts and maximise operational lighting benefits for open space Design and install lighting used during operation of permanent structures and resulting from the orientation of all permanent structures (including from vehicle headlights) in accordance with relevant standards, including but not limited to relevant guidelines and Australian Standards pertaining to outdoor lighting and the protection of beneficial uses ~~AS 4282-1997 Control of the obtrusive effects of outdoor lighting.~~ Design and install lighting to minimise light spill and disturbance to significant fauna sites ~~(eg~~, including the Grey-headed Flying-fox colony at Yarra Bend, wetlands and waterways immediately adjacent to roadways~~)~~. Provide sensitively designed lighting to shared user paths and open spaces to provide improved safety for users without causing unreasonable effects on residential amenity or environmental and landscape values. Designs must consider Crime Prevention Through Environmental Design, including effects on safe movements of pedestrians and cyclists; including within undercrofts, bicycle and pedestrian tunnels and open spaces areas	Supported.
13. Noise and Vibration (NV)			
NV1	NV1	Achieve traffic noise objectives Design ~~and~~ construct and maintain the works to meet the following ~~L_{A10}~~ traffic noise objectives.	Supported in principle. Remove reference to noise criteria applying to all levels and revert to lowest habitable level of Category A and Category

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Aspect	External traffic noise levels
External traffic noise levels	(a) Traffic noise from North East Link Project Roads* must be no greater than: 63 dBA (L10,18hr) measured between 6 am and midnight at Category A buildings** 63 dBA (L10, 12hr) measured between 6 am and 6 pm at Category B buildings**. (b) For Category A and Category B buildings on non-Project Roads which: Abut the North East link project roads, or directly intersect with North East Link project roads, and where total traffic noise for the design year and with Project exceeds the thresholds listed in paragraph (a). The combined noise from North East Link Project Roads and non-Project Roads must not be more than 2 dBA higher than the predicted traffic noise level under the design year 'do nothing' scenario. Intersecting n~~N~~on-Project Roads must be modelled for a distance of 100 m from the intersection with North East Link Project Roads or to the first traffic intersection (whichever is the lesser). (c) Night-time traffic noise for category A buildings must meet the WHO 2009 interim target of LAeq night 55dB when adjusted to Australian conditions as per the EES Technical Appendix C i.e be no greater than 58dB LAeq 8hr (including façade correction). The 8hour time period is to be between 2200-0600hrs as consistent with the Better Apartment Design Standards.
Applies at	The noise criteria in paragraphs (a) and (b) above are to apply at all levels ~~to the lowest habitable level~~ of Category A buildings and Category B buildings at both the year of opening and 20 ~~10~~ years thereafter ~~(the design year).~~ Traffic noise mitigation measures must be maintained throughout this period. For the purposes of this EPR, Category A buildings and Category B buildings to be considered are those that are either existing or known to have planning approval prior to exhibition of the North East Link Environment Effects Statement. Where external traffic noise cannot be mitigated through project design solutions to meet the criteria outlined in paragraphs (a), ~~and~~ (b) and (c), at-property treatments ~~may~~ will be required to ensure that internal noise levels achieve the following: 35dBA for bedrooms assessed as an LAeq, 8 h from 10pm -6am 40dBA for living areas assessed as LAeq, 16h from 6am-10pm ~~an equivalent internal level of attenuation is provided to the building.~~ At-property treatments would be undertaken with reference to section 7.3 of the NSW Road and Maritime Services document 'Noise Mitigation Guidelines 2015 – Roads and Maritime Services', and in consultation with the owner of the relevant building. In circumstances where at-property treatments are proposed, the Independent Environmental Auditor must review the project design solutions to confirm that the criteria outlined in paragraphs (a), ~~and~~ (b) and (c), could not be achieved by the adoption of reasonable and feasible detailed design measures.

* Project Roads are defined to be the M80 Ring Road (east of Plenty Road), the Greensborough Bypass (west of the Plenty River bridge and up to the M80 interchange with North East Link), the upgrade of the Eastern Freeway (between Hoddle Street and Springvale Road) and the new North East Link freeway (connecting the M80 Ring Road to the Eastern Freeway), including all access ramps.

** Category A Buildings and Category B Buildings means:
- Category A Buildings – Residential dwellings, aged persons homes, hospitals, motels, caravan parks and other buildings of a residential nature
- Category B Buildings – Schools (including buildings within the Carey Sports Complex),

B buildings.

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<tr><th>No.</th><th>IAC No.</th><th>EPR Version 5 as amended by the IAC (note no EPR cross-references have been updated to reflect proponent, IAC or Minister's assessment numbered references)</th><th>Minister's assessment</th></tr>
<tr><td></td><td></td><td>kindergartens, libraries and other noise-sensitive community buildings.
*** If a resident of a dwelling advises NELP that they consider their residence to be noise affected, NELP must assess external and internal noise levels against the above criteria. If the external noise levels do not comply and mitigation is not feasible then internal levels as above must be achieved. If the internal levels are not achieved then NELP must undertake at property treatment to achieve the required internal noise levels</td><td></td></tr>
<tr><td>NV2</td><td>NV NEW</td><td>Noise at public open space and school recreation grounds
Predicted noise levels at existing public open space and school grounds detailed in updated noise modelling for the final design and as-built construction of the Project must not exceed the predicted design year noise levels +2dB detailed in the EES -Technical Appendix C.
Noise monitoring at appropriate locations must be performed post construction to verify that predicted levels have been achieved. Monitoring must be performed 10 years and 20 years after Project opening.</td><td>Supported in principle. Remove the reference to +2 dB.</td></tr>
<tr><td>NV3</td><td>NV2</td><td>Monitor traffic noise
Traffic noise monitoring must be carried out for at least the following time periods:
• Baseline traffic noise must be re-measured after project award and prior to construction works
• Traffic noise must be re-measured within six months of project opening during normal traffic flows (outside school or public holidays). For the purpose of determining compliance, the measurements conducted after project opening must be adjusted to the 10 year traffic flows.
• Traffic noise must be re-measured 10 years and 20 years after project opening
All traffic noise monitoring must be undertaken in accordance with the VicRoads Traffic Noise Measurement Requirements for Acoustic Consultants – September 2011, to verify conformance with the external traffic noise objectives set out in EPR NV1. The adequacy of the monitoring program is to be verified by the Independent Environmental Auditor.
Remedial action must be taken as soon as practicable in the event that the measured traffic noise levels demonstrate that the external traffic noise objectives set out in EPR NV1 are not met.</td><td>Supported.</td></tr>
<tr><td>NV4</td><td>NV3</td><td>Minimise construction noise impacts to sensitive receptors
Construction noise and vibration must be managed in accordance with the Construction Noise and Vibration Management Plan (CNVMP) required by EPR NV4.
Non-residential sensitive receptors
For sensitive land uses (based on AS/NZS 2107:2016) implement management actions as per EPR NV4 if construction noise is predicted to or does exceed the internal ~~and~~ or external noise management levels set out in the table below, and a noise sensitive receptor is, or is predicted to be, adversely impacted. If construction exceeds the noise management levels below, in determining whether a noise sensitive receptor is, or is predicted to be, adversely impacted:
• Consider the duration of construction noise
• Consider the existing ambient noise levels
• Consult with the owner or operator of the noise sensitive receptor
• Consider any specific acoustic requirements of land uses listed below to determine whether a noise sensitive receptor is adversely impacted.
<table><tr><th>Land use</th><th>Construction noise management level, $L_{Aeq(15\ min)}$ applies when properties are in use</th></tr><tr><td>Classrooms in schools and other educational institutions</td><td>Internal noise level 45 dB(A)</td></tr><tr><td>Healthcare facilities including h~~H~~ospital wards and operating theatres, and rehabilitation centres</td><td>Internal noise level 45 dB(A)</td></tr><tr><td>Places of worship</td><td>Internal noise level 45 dB(A)</td></tr><tr><td>Active recreation areas characterised by sporting activities and activities which generate their own</td><td>External noise level 65 dB(A)</td></tr></table></td><td>Supported in principle. Minor amendments to:
• Include an additional notation in relation to school grounds that indicates that the achievement of the construction noise management level is subject to reasonable and feasible and further consultation with affected schools should be undertaken to designate the most sensitive areas where teaching occurs within sporting grounds.
• Clarify that construction includes all construction works and construction compounds.
• Integrate minor</td></tr>
</table>

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noise, making them less sensitive to external noise intrusion	
Passive recreation areas characterised by contemplative activities that generate little noise and where benefits are compromised by external noise intrusion, for example reading, meditation School grounds used for sport and associated teaching purposes are to be considered as passive recreation areas	External noise level 60 dB(A)
Community centres	Depends on the intended use of the centre. Refer to the recommended maximum internal levels in AS/NZS 2107:2016 for specific uses
Industrial premises	External noise level 75 dB(A)
Offices, retail outlets	External noise level 70 dB(A)
Other noise sensitive land uses as identified in AS/NZS 2107:2016	Refer to the noise levels in AS/NZS 2107:2016

corrections to reflect terminology used in AS/NZS 2107.

Residential receptors

For residential dwellings, management actions must be implemented as per EPR NV4 if noise from construction works during normal working hours is predicted to or does exceed the noise management levels for normal working hours below.

Noise from construction works during weekend/evening work hours and the night period must meet the weekend/evening and night period noise guideline targets in the table below unless they are Unavoidable Works verified by the Independent Environmental Auditor as per EPR NV4. All reasonable strategies to mitigate the impacts of such Unavoidable Works must be applied.

Time of day	Construction noise guideline targets
Normal working hours: 7 am – 6 pm Monday to Friday 7 am – 1 pm Saturday	Noise affected: Background L_{A90}+10 dB Highly noise affected: 75 dB(A) Source: NSW Interim Construction Noise Guideline (ICNG) Chapter 4.1.1 Table 2 The noise affected level represents the point above which there may be some community reaction to noise The highly noise affected level represents the point above which there may be strong community reaction to noise.
Weekend/evening work hours: 6 pm – 10 pm Monday to Friday 1 pm – 10 pm Saturday 7 am – 10 pm Sunday and public holidays	Noise level at any residential premises not to exceed background noise (L_{A90}) by: • 10 dB(A) or more for up to 18 months • 5 dB(A) or more after 18 months Source: EPA Publication 1254 Section 2
Night period: 10 pm – 7 am Monday to Sunday	Noise inaudible within a habitable room of any residential premises Source: EPA Publication 1254 Section 2 and EPA Publication 480 Section 5

Note: Where any reference is made to the rating background level (RBL) or background L_{A90}; the 'average background' over the assessment period as per Victorian noise policy practices is to be

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		used. This applies to all receptors and all time periods. Unavoidable Works Unavoidable Works must be verified by the Independent Environmental Auditor for each instance they are undertaken, as per EPR NV4 and may include the following: • The delivery of oversized plant or structures that police or other authorities determine require special arrangements to transport along public roads • Emergency work to avoid the loss of life or damage to property, or to prevent environmental harm • Maintenance and repair of public infrastructure where disruption to essential services and/or considerations of worker safety do not allow work within standard hours • Tunnelling works including mined excavation elements and the activities that are required to support tunnelling works (ie spoil treatment facilities) • Road and rail occupations or works that would cause a major traffic hazard • Other works where a contractor demonstrates and justifies a need to operate outside normal working hours and exceed the noise guideline targets such as work that once started cannot practically be stopped.	
NV5	NV4	Implement a Construction Noise and Vibration Management Plan (CNVMP) to manage noise and vibration impacts Prepare, implement and maintain a Construction Noise and Vibration Management Plan (CNVMP) in consultation with EPA Victoria, ~~and~~ relevant councils and relevant stakeholders. The CNVMP must comply with and address the Noise and Vibration EPRs, be informed by the noise modelling and monitoring results and must include (but not be limited to): • Identification and assessment of noise and vibration sensitive receptors along the project alignment, including but not limited to: habitat for listed threatened fauna likely to be impacted by the project buildings used for shop, gallery, commercial, office or industrial purposes including Bulleen Art and Garden and the Heide Museum of Modern Art school buildings and school grounds Residential buildings ~~• Identification and assessment of noise and vibration sensitive receptors along the project alignment, including habitat for listed threatened fauna likely to be impacted by the project, and the Heide Museum of Modern Art.~~ • Construction noise and vibration targets as per EPRs NV3, NV5, NV8, NV9, NV10, NV11 and NV12, including any details of conversions between alternative metrics • 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 airborne noise and/or surface vibration impacts on surrounding sensitive receivers • How construction noise (including truck haulage) and vibration would be minimised (see EPR T2) • A requirement for preliminary tests using the actual equipment to validate modelling for vibration and regenerated noise and review, with predictions to be remodelled as necessary and confirm prevention/mitigation/remediation measures confirmed • Management actions and notification and mitigation measures to be implemented with reference to the Appendix B and Appendix C of the New South Wales Roads and Maritime Services Construction Noise and Vibration Guideline 2016 (CNVG) • Any processes and measures to be implemented as part of the Communications and Community Engagement Plan including managing matters of interest raised by key stakeholders through CCEP processes, and measures concerning complaints management (see EPR SC2) • Requirements to assess and manage vibration impacts to scientific or medical establishments to the higher of ambient levels or ASHRAE VC Standards (as defined in the 2015 handbook), or manufacturers equipment levels (unless by agreement with occupant) • Measures to ensure effective monitoring of noise and vibration associated with construction with consideration to the construction noise and vibration targets	Supported in principle. Include reference to construction compounds as well as construction works.

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		• Measures to minimise noise and vibration impacts from temporary traffic diversions and altered access to parking facilities • The Unavoidable Works ~~(as defined in NV3)~~ that would be undertaken, including their location, timing and duration. The CNVMP must either include a clear rationale for defining works or a list of the type of planned works that constitute Unavoidable Works and response strategies to mitigate the impacts of these Unavoidable Works, consistent with EPA Victoria Publication 1254 Noise Control Guidelines and with reference to Appendix B and Appendix C of the CNVG. The Independent Environmental Auditor must verify that the proposed Unavoidable Works meet the definition of Unavoidable Works ~~(as defined in NV3)~~ for each instance they are undertaken. Details of Unavoidable Works must be made publicly available. For emergency Unavoidable Work, a rationale must be provided to the satisfaction of the Independent Environmental Auditor as soon as practicable. • Noise from construction works during weekend/evening work hours and the night period must meet the weekend/evening work hours and night period noise guideline targets unless they are unavoidable works verified by the Independent Environmental Auditor. All reasonable measures must be implemented to mitigate the impacts of such unavoidable works. A clear framework for managing Unavoidable Work must be developed and include noise level thresholds and details of mitigation measures. The framework must be approved by the Independent Environmental Auditor. The CNVMP must be reviewed (including external stakeholder review) and updated as appropriate on a six monthly basis, and verified by the Independent Environmental Auditor.	
NV6	NEW NV	Monitoring of Ongoing performance of operational traffic noise mitigation measures Permanent noise monitoring stations must be established in representative locations to enable the ongoing real time monitoring of operational traffic noise to demonstrate that the operational traffic noise limits in NV1 continue to be met for 20 years after project opening. If operational traffic noise limits in NV1 are not being met then mitigating works must be undertaken and completed within 6 months after the non- compliance is detected to the satisfaction of the Minister of the Crown at that time responsible for the administration or the Planning and Environment Act 1987 or any later similar enactment. Where open graded asphalt is used and is relied on to achieve compliance with noise limits the acoustic performance of the OGA must be assessed at least once in each 12 months to ensure that it continues to reduce operational traffic noise to the project traffic noise objectives in NV1. NELP interactive noise tool The following information is to be made freely available on a publicly accessible website as interactive layers: • Existing (pre-Project) noise levels • Final operational road traffic noise contours for the Project; • Operational noise criteria for the Project; • Operational noise monitoring data for the Project. The maps are to be interactive so as to enable the public to locate their position on a map, identify the operational noise criteria and data relevant to their location and submit a query or complaint to NELP online.	Supported in principle. Amend the timeframe for mitigation works and a retrofitting criterion to be determined by the independent environmental auditor and reports to be provided to the Minister for Roads, or his/her successor.
NV7	NV5	Establish vibration guidelines to protect utility assets Prior to construction undertake condition assessments of above and below ground utility assets (EPR GM3) and consult with asset owners to establish and agree construction vibration guidelines to maintain asset integrity. In all cases the asset owner's criteria takes precedence. Where construction vibration guidelines are not proposed by the asset owner, reference should be made to the relevant sections of German Standard DIN 4150 – Part 3 – Structural Vibration in Buildings – Effects on Structures (2016) for guideline assessment procedures for buried pipework or underground infrastructure. The integrity of the asset should be reviewed and assessed (by the contractor, in conjunction with the asset owner) to confirm these values are appropriate. If necessary, based on this assessment, limits must be reduced to the level necessary to maintain asset integrity. Monitor vibration levels during construction to demonstrate compliance with agreed vibration guidelines. Identify contingency measures to be implemented if guidelines are not met. Where	Supported.

<table>
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<tr><td></td><td></td><td>necessary rectify any defects that are attributable to the project.
An overview of the key vibration guidelines values is presented below. In all cases, the supporting documentation within the Standard which describes, clarifies and sometimes modifies the tables below must be considered.
Table 2 Guideline values for vi, max, for evaluating the effects of short-term vibration on the lining of underground cavities
<table>
<tr><th>Line</th><th>Lining material</th><th>Guideline values for vi, max in mm/s perpendicular to lining surface</th></tr>
<tr><td>1</td><td>Reinforced or sprayed concrete, tubbing segments</td><td>80</td></tr>
<tr><td>2</td><td>Concrete, stone</td><td>60</td></tr>
<tr><td>3</td><td>Masonry</td><td>40</td></tr>
</table>
Note: The guideline values were measured during nearby mine blasting operations and apply only to the lining of underground structures, but not to any associated installations.
Table 3 Guideline values for vi, max, for evaluating the effects of short-term vibration on buried pipework
<table>
<tr><th>Line</th><th>Lining material</th><th>Guideline values for vi, max in mm/s perpendicular to lining surface</th></tr>
<tr><td>1</td><td>Steel, welded</td><td>100</td></tr>
<tr><td>2</td><td>Vitrified clay, concrete, reinforced concrete, prestressed concrete, metal (with or without flange)</td><td>80</td></tr>
<tr><td>3</td><td>Masonry, plastics</td><td>50</td></tr>
</table></td><td></td></tr>
<tr><td>NV8</td><td>NV6</td><td>Design permanent tunnel ventilation system and relevant fixed infrastructure to meet EPA requirements for noise
Design and construct ~~implement~~ the permanent tunnel ventilation system and relevant fixed infrastructure that is subject to State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 (SEPP N-1) to achieve compliance with SEPP N-1 (or any later equivalent) and in accordance with the Works Approval.
Where SEPP N-1 (or any later equivalent) does not apply, design and implement the permanent tunnel ventilation system to comply with the internal Satisfactory Recommended Design Sound Levels as defined in AS/NZS 2107 for relevant affected spaces. ~~teaching purposes.~~
If the existing internal background noise level within any identified relevant already exceeds the Maximum Recommended Design Sound Level in AS/NZS 2107, then noise from the fixed plant associated with the Project must not exceed the existing background levels within these spaces.
~~Provide detailed design of the tunnel ventilation system to the satisfaction of EPA Victoria prior to commencement of the works permitted by the Works Approval.~~</td><td>Supported in principle. Reflect terminology used in AS/NZS 2107.</td></tr>
<tr><td>NV9</td><td>NV7</td><td>Monitor noise from tunnel ventilation system and relevant fixed infrastructure
Measure noise from the permanent tunnel ventilation system and relevant fixed infrastructure that is subject to State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1 (SEPP N-1) on commencing road operation and monitor noise from the tunnel ventilation system post opening of the North East Link, as agreed with EPA Victoria, to verify compliance with SEPP N-1 (or any later equivalent) and the EPA Victoria Licence. Identify and implement contingency measures to be implemented if noise level limits are not met.</td><td>Supported.</td></tr>
<tr><td>NV10</td><td>NV8</td><td>Minimise construction vibration impacts on amenity
Implement management actions if the following guideline target levels for vibration from construction activity to protect human comfort of occupied buildings (including heritage buildings) are not achieved (levels are calculated from the British Standard BS6472-1:2008 Guide to evaluation of human exposure to vibration in buildings. Vibration sources other than blasting.).</td><td>Supported.</td></tr>
</table>

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Type of space occupancy	Vibration Dose Values (m/s$^{1.75}$)			
	Day (7am to 10 pm)		Night (10 pm to 7am)	
	Preferred Value	Maximum Value	Preferred Value	Maximum Value
Residential	0.2	0.4	0.1	0.2
Offices, schools, educational institutions, places of worship	0.4	0.8	0.4	0.8
Workshops	0.8	1.6	0.8	1.6

Notes

1 The Guideline Targets 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.

2 The Vibration Dose Values may be converted to Peak Particle Velocities within a noise and vibration construction management plan.

3 For the purpose of this EPR, the guideline target levels for 'offices, schools, educational institutions, places of worship' also apply to the Heide Museum of Modern Art and the outdoor sculpture exhibition area at Heide Museum of Modern Art.

NV11 NV9

Minimise construction vibration impacts on structures

Supported.

Construction vibration targets for structures based on German Standard DIN 4150 – Part 3 – Structural Vibration in Buildings – Effects on Structures (2016) must be adopted. All sections of the German Standard DIN 4150 – Part 3 – Structural Vibration in Buildings – Effects on Structures (2016) standard apply, noting the guideline levels detailed in Section 5 and Section 6 (and any references sections).

An overview of the key vibration guidelines values is presented below. In all cases, the supporting documentation within the Standard which describes, clarifies and sometimes modifies the tables below must be considered.

Table 1 — Guideline values for vibration velocity, vi, max, for evaluating the effects of short-term vibration on structures

Column Line	Type of structure	Guideline values for vi, max in mm/s				
		Foundation, all directions, i = x, y, z, at a frequency of			Topmost floor, horizontal direction, i = x, y	Floor slabs, vertical direction, i = z
		1 Hz to 10 Hz	10 Hz to 50 Hz	50 Hz to 100 Hz (a)	All frequencies	All frequencies
1	Buildings used for commercial purposes, industrial buildings, and buildings of similar design	20	20 to 40	40 to 50	40	20
2	Residential buildings and buildings of similar design and/or occupancy	5	5 to 15	15 to 20	15	20
3	Structures that,	3	3 to 8	8 to 10	8	20 (b)

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	because of their particular sensitivity to vibration, cannot be classified under lines 1 and 2 and are of great intrinsic value (eg listed buildings)						

Note: Even if guideline values as in line 1, columns 2 to 5, are complied with, minor damage cannot be excluded.

(a) At frequencies above 100 Hz, the guideline values for 100 Hz can be applied as minimum values.

(b) Paragraph 2 of 5.1.2 must be observed.

Table 4 — Guideline values for vi, max, for evaluating the effects of long-term vibration on buildings

Type of building		Guideline values for vi, max, in mm/s	
		Topmost floor, horizontal direction, all frequencies	Floor slab, vertical direction, all frequencies
Column Line	1	2	3
1	Buildings used for commercial purposes, industrial buildings, and buildings of similar design	10	10
2	Residential buildings and buildings of similar design and/or occupancy	5	10
3	Structures that, because of their particular sensitivity to vibration, cannot be classified under lines 1 and 2 and are of great intrinsic value (eg listed buildings)	2.5	10 (a)

Note: Even if guideline values as in line 1, column 2, are complied with, minor damage cannot be ruled out.

(a) Section 6.1.2 must be observed.

Vibration levels above apply to all works, including unavoidable works as defined in NV3

NV12 NV10

Minimise impacts from ground-borne (internal) noise

Supported.

Implement management actions in consultation with potentially affected land owners to protect amenity at residences where the following ground borne noise guideline targets based on Section 4.2 of the New South Wales Interim Construction Noise Guidelines are exceeded during construction.

Time of Day	Internal noise level measured at the centre of the most affected habitable room
Evening (6 pm to 10 pm)	$L_{Aeq(15\ minute)}$ = 40 dBA
Night (10 pm to 6 am)	$L_{Aeq(15\ minute)}$ = 35 dBA

Notes

1 Levels are only applicable when ground borne noise levels are higher than airborne noise levels.

<table>
<tr><th>No.</th><th>IAC No.</th><th>EPR Version 5 as amended by the IAC (note no EPR cross-references have been updated to reflect proponent, IAC or Minister's assessment numbered references)</th><th>Minister's assessment</th></tr>
<tr><td></td><td></td><td>2 Management actions include community consultation to determine acceptable level of disruption and provision of respite accommodation in some circumstances.
3 Noise levels above apply to all works, including unavoidable works as defined in NV3</td><td></td></tr>
<tr><td>NV13</td><td>NV11</td><td>Minimise amenity impacts from blast vibration
Implement management actions if the following vibration values are not achieved. Blasting activities must comply with Australian Standard AS2187.2-2006, Explosives – Storage and use Part 2 – Use of explosives for all blasting.
<table>
<tr><th>Category (as defined in AS 2187.2-2006)</th><th>Type of blasting operations</th><th>Peak component particle velocity (mm/s)</th></tr>
<tr><td>Sensitive site</td><td>More than 20 blasts</td><td>5 mm/s for 95% blasts per year
10 mm/s maximum (unless by agreement with occupier)</td></tr>
<tr><td>Sensitive site</td><td>Less than 20 blasts</td><td>10 mm/s maximum (unless by agreement with occupier)</td></tr>
<tr><td>Non-sensitive site (with occupants)</td><td>All blasting</td><td>25 mm/s maximum value (unless by agreement with occupier).</td></tr>
<tr><td>Scientific equipment
•</td><td>All blasting</td><td>Existing ambient levels or ASHRAE VC Standards (as defined in the 2015 handbook) (whichever is the higher) or manufacturers equipment levels (unless by agreement with occupier)</td></tr>
</table></td><td>Supported.</td></tr>
<tr><td>NV14</td><td>NV12</td><td>Minimise amenity impacts from blast overpressure
Implement management actions if the following overpressure values are not achieved. Blasting activities must comply with Australian Standard AS2187.2-2006, Explosives – Storage and use Part 2 – Use of explosives for all blasting.
<table>
<tr><th>Category (as defined in AS 2187.2-2006)</th><th>Type of blasting operations</th><th>Peak Overpressure Value (dBL)</th></tr>
<tr><td>Sensitive Site</td><td>More than 20 blasts</td><td>115 dBL for 95% blasts
120 dBL maximum (unless by agreement with occupier)</td></tr>
<tr><td></td><td>Less than 20 blasts</td><td>120 dBL for 95% blasts
125 dBL maximum (unless by agreement with occupier)</td></tr>
<tr><td>Occupied non-sensitive sites such as factories and commercial premises
•</td><td>All blasting</td><td>125 dBL maximum (unless by agreement with occupier)
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>
</table></td><td>Supported.</td></tr>
<tr><td>NV15</td><td>NV13</td><td>Noise mitigation – noise walls
Construction of permanent noise attenuation must, where feasible, be installed in advance of adjacent works.
Where the ultimate wall cannot be constructed prior to demolition of the existing wall and noise sensitive premises will be exposed to significantly increased traffic noise for an extended period, install temporary noise walls where practicable.</td><td>Supported.</td></tr>
</table>

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NV16	NV14	Reduce impacts from engine brake noise Measures to encourage heavy vehicle drivers to reduce use of engine brakes must be considered and implemented, where practicable.	Supported.
14. Social and Community (SC)			
SC1	SC1	Reduce community disruption and adverse amenity impacts Design and construct the project to reduce disruption to residences, community infrastructure facilities and open space from direct acquisition or temporary occupation, ~~as far as is practicable~~ to the maximum extent possible to preserve acceptable levels of amenity.	Supported.
SC2	SC NEW1	Minimise and m~~M~~anage impacts of land acquisition and occupation Where private land is to be permanently acquired or temporarily occupied, the project must ~~will~~: • Minimise the extent of the acquisition or the extent or duration of the occupation • Use a case-management approach for project interactions with affected land owners and occupants including appointing a social worker, buyers' advocate or equivalent to assist households with special needs to manage the transition • Endeavour to reach agreement on the terms for possession of the land including purchasing properties early when identified for permanent acquisition and supported by the landowner • Consider the relative vulnerability and special needs of land owners and occupants. • Communicate likely timing and steps to be taken including updates as relevant. • Return private land not required for permanent project infrastructure to its pre-existing use post-construction as soon as practicable, unless otherwise agreed with the land owner. Where public land is to be permanently acquired or temporarily occupied, the project will: • Minimise the extent of the acquisition or the extent or duration of the occupation • Stage works to the maximum extent possible to maintain functionality of the land for all users either within the site or on proximate land, subject to the Relocation and Replacement Plan • Endeavour to reach agreement with the land manager on the terms for possession of the land • Return public land not required for permanent project infrastructure to its pre-existing use post-construction as soon as practicable, including with all relevant reinstatement works, unless otherwise agreed with the land manager. • In the case of public land used for formal active recreation, ensure that impacts are minimised in accordance with SC4.	Supported.
SC3	SC2	Implement a Communications and Community Engagement Plan ~~Prior to construction,~~ Before the project starts, prepare and implement a Communications and Community Engagement Plan to engage the community and potentially affected stakeholders and communicate progress of construction activities and operation. The plan must include: • A process for identifying community issues and the recording, management and resolution of complaints from affected stakeholders including business owners, community service providers, education providers, public and active transport key user groups and residents, consistent with Australian Standard AS/NZS 10002:2014 Guidelines for Complaint Management in Organisations • Approach to stakeholder identification • Enquiry management and record keeping approach and procedures including making available an attended 24 hour telephone number, postal address, and an email address and publishing these on the project website • Approach to communicating and engaging with the community and potentially affected stakeholders in relation to: • Construction activities including temporary facilities and impacts that may affect the community, businesses or individual stakeholders (eg dust, noise, vibration and light) and relevant mitigation (eg relocations policy) • Changes to transport conditions and relevant mitigation (eg road closures, detours) • Timelines and an outline of works that will affect particular local areas, to be updated to reflect current and anticipated conditions. • Identifying how stakeholders can access information on environmental performance that is to be made publicly available	Supported in principle. Retain 'Prior to construction' and some minor modifications to clarify that updates on project works need to be provided to the community rather than updating the Communications and Community Engagement Plan.

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		• Incident and emergency communications, including notification methods and timeframes in the event of a major incident or overrun • Approach and processes to ensure that the workforce has appropriate community awareness and sensitivity including to prevent the workforce from parking in local roads and in public parking in the vicinity of local shopping areas except when frequenting those areas for private purposes. • Innovative communications tools and methods to enhance the project's ability to effectively communicate and engage with the community and stakeholders including best available technology in addition to conventional means. • Approach to engaging with local schools to ascertain safety requirements (including evacuation opportunities) and to provide education opportunities on project activities. • Approach to making relevant project information available to the community with specific consideration to vulnerable groups (including culturally and linguistically diverse groups) and a responsive process for resolving complaints by vulnerable groups or individuals. • How it will evaluate the effectiveness of the communication and engagement under the Communications and Community Engagement Plan. The Communications and Community Engagement Plan must consider and where appropriate address matters of interest or concern to the following stakeholders, and provide for the appointment of a dedicated liaison officer (as appropriate): • Municipal councils • Recreation, sporting clubs and community groups • Schools and other educational institutions • Potentially affected residents and property owners • Potentially affected business • Other public facilities in proximity • Religious and worship groups • Vulnerable groups • Traditional owners • Public transport users	
SC4	SC3	Participate in the Community Liaison Group Contractors must participate in the Community Liaison Group (CLG) that has been established and managed by North East Link Project, to facilitate community and stakeholder involvement for the design and construction phases of the project. Participation must include: • Attendance at meetings • Regular reporting of design and construction activities • Timely provision of relevant information, including response to issues raised by the group • Regular reporting and monitoring of community feedback, impacts and discussion of mitigation measures and their effectiveness.	Supported.
SC5	SC4	Minimise impacts of displacement of formal active recreation facilities The project must be designed and delivered to avoid and minimise displacement of formal active recreation facilities including activities on private land such as schools. Where formal active recreation facilities are displaced by the construction or operation of the project, the project ~~identify relocation opportunities with the objective of accommodating displaced facilities and maintaining the continuity of those formal active recreational activities, except where otherwise agreed with the relevant facility owner. The project will prepare and implement a relocation plan, designed to achieve replacement of displaced facilities at suitable locations within a defined timeframe, to meet this objective.~~ must facilitate the relocation of all such facilities to an acceptable location to enable their continued functionality at a reasonable level of service for those activities (except where otherwise agreed with the relevant facility owner or where other compensation is provided by agreement or under relevant legislation). The Proponent must ~~will~~ work in collaboration with facility operators, local Councils public land managers and relevant State authorities to prepare and implement a Facilities Relocation Plan. The Plan must: • seek to relocate all formal active recreation facilities to the extent possible before existing facilities are discontinued	Supported in principle. Remove avoid from first sentence, intent should be to minimise. Redraft to avoid prescription and to clarify that the relocation site and arrangements must be reasonable. .

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		• document measures to be provided by the Proponent to provide suitable replacement facilities at all relocated sites • document measures to be provided by the Proponent to restore facilities that have been vacated to the same or higher standard than when the use was discontinued, accounting for identified growth of clubs (where applicable) and for any decline in condition of the facility during the time of disuse • consider and provide a suite of reasonable measures to enable the ongoing viability of relevant sporting and recreation clubs affected by displacement and to reduce material disadvantage.	
SC6	SC NEW2	Minimise impacts on formal active recreation and other facilities Where construction or operation activities directly impact formal active recreation facilities or community infrastructure facilities not on public land such as schools, child care centres, and aged care centres, consultation must occur with facility operators, owners and user groups of the facilities to understand and, implement any practical measures that can be taken to avoid or minimise impacts. Such measures must provide for ~~should achieve~~ the continued operation of each facility, with suitable access provision of generally proximate parking comparable to pre-development conditions (where possible), reasonable protection of amenity, and maintenance of the current level and nature of activity, except where otherwise agreed with relevant facility owners.	Supported.
SC7		Recommended new EPR to give effect to the recommendation of my assessment that the proponent develop and implement a Community Involvement and Participation Plan (CIPP), or equivalent, in consultation with councils and representatives of local communities affected by impacts of the project to facilitate a range of initiatives to encourage community involvement and participation, enhance the local area and create a positive project legacy. The CIPP should apply for the duration of construction. Initiatives that could be considered for funding include community support grants, small capital works projects, sponsorship of local sporting clubs, community events and festivals, or other community-led initiatives.	
SC8		Recommended new EPR to give effect to the recommendation of my assessment that the proponent implement a voluntary acquisition scheme for residential properties that satisfy defined criteria relating to significant amenity impacts. Criteria should include distance from major works, likely extent and duration of proximate works, predicted adverse effects on amenity and the presence of vulnerable occupants.	
15. Surface Water (SW)			
SW1	SW1	Discharges and runoff to meet State Environment Protection Policy (Waters) Meet the State Environment Protection Policy (Waters) requirements for discharge and run-off from the project, including by complying with the Victorian Stormwater Committee's Best Practice Environmental Management Guidelines for Urban Stormwater (as published by CSIRO in 1999 with assistance from EPA Victoria and others).	Supported.
SW2	SW2	Design and implement spill containment Design and construct the spill containment capacity of the stormwater drainage system for all freeway pavements (including ramps) to manage the risk of hazardous spills from traffic accidents at or prior to every stormwater outlet, to meet AustRoads requirements (Part 5 Drainage – General & Hydrology Considerations). The design and location of spill containment must consider the risk and potential impact of a spill, as well as the effectiveness in reducing the risks associated with a spill on the environment. Develop procedures for freeway roads and ramps to be implemented in response to a hazardous spill. The OEMP must include requirements to maintain spill containment infrastructure and implement associated procedures.	Supported.
SW3	SW3	Waste water discharges to be minimised and approved The Surface Water Management Plan (refer EPR SW5) and OEMP must include requirements and methods for minimising, handling, classifying, treating, disposing and otherwise managing waste water. Any proposed discharge of waste water from the site must be approved by the relevant authority prior to discharges occurring and meet the State Environment Protection Policy (Waters) requirements.	Supported.

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SW4	SW4	Monitor water quality Develop and implement a surface water monitoring program prior to commencement of, and during construction, to assess surface water quality in multiple locations at suitable distances upstream and downstream of works to establish baseline conditions, and enable assessment of construction impacts on receiving waters. The surface water quality monitoring program must be implemented for a period up to three years after commencement of North East Link operation, or a lesser period agreed with the EPA, to assess the discharges and runoff from the project against SEPP requirements and confirm the effectiveness of environmental controls. The monitoring program must be developed in consultation with EPA Victoria and the asset owner/manager and as appropriate with reference to applicable policies and guidelines, including SEPP (Waters), Victorian Stormwater Committee's Victoria Best Practice Environmental Management Guidelines for Urban Stormwater (as published by CSIRO in 1999 with assistance from EPA Victoria and others), EPA Victoria Publication 596 Point source discharges to streams: protocol for in-stream monitoring and assessment and Industrial Waste Resource Guideline 701 Sampling and analysis of waters, wastewaters, soils and wastes. The surface water monitoring program is to be used to inform the development and refinement of the Surface Water Management Plan (EPR SW5).	Supported.
SW5	SW5	Implement a Surface Water Management Plan during construction Develop and implement a Surface Water Management Plan, in consultation with EPA Victoria, for construction that sets out requirements and methods for: • Best practice sediment and erosion control and monitoring, in general accordance with EPA Victoria publications 275 Construction techniques for sediment pollution control, 480 Best Practice Environmental Management Environmental Guidelines for Major Construction Sites, 960 Temporary Environmental Protection Measures for Subdivision Construction Sites, and Industrial Waste Resource Guideline 701 Sampling and analysis of waters, wastewaters, soils and wastes • Maintaining the key hydrologic and hydraulic functionality and reliability of existing flow paths, drainage lines and floodplain storage • Retain existing flow characteristics to maintain waterway stability downstream of construction • Location and bunding of any contaminated material (including tunnel spoil and stockpiled soil) to the 1% AEP flood level and to the requirements of EPA Victoria and the relevant drainage authority • Works scheduling to reduce flood related risks • Bunding of significant excavations including tunnel portals and interchanges to an appropriate level during the construction phase • Protecting against the risk of contaminated discharge to waterways when working in close proximity to potential pollutant sources (eg landfill or sewer infrastructure) • 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.	Supported in principle. Plan to be completed prior to construction.
SW6	SW6	Minimise risk from changes to flood levels, flows and velocities Permanent works and associated temporary construction works must not increase overall flood risk at relevant locations or modify the flow regime of waterways without the acceptance of the relevant flood plain manager, drainage authority or asset owner (typically Melbourne Water) and in consultation with other relevant authorities (eg Council, Department of Transport, Parks Victoria, SES, emergency services). Prior to construction, f~~F~~lood risk should be appropriately assessed using modelling of the design of permanent and temporary works to demonstrate the resultant flood levels and risk profile in accordance with Melbourne Water Standards for Infrastructure Projects in Flood-Prone Areas (2019). This modelling analysis is to include sufficient events (at least up to and including the 1% AEP event) and scenarios (eg with and without blockage) to support the estimation of tangible (eg average annual damages) and intangible flood damages. If significant increases in flood risk are	Supported.

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		predicted for any events analysed, an assessment of overall flood risk considering tangible and intangible flood damages must be prepared and presented with appropriate mitigation measures for the acceptance of the relevant drainage authority or asset owner prior to commencement of construction for the relevant section of the works. If there are significant design changes during construction, the model must continue to be updated, as appropriate to represent those changes.	
SW7	SW7	Develop flood emergency management plans Develop and implement flood emergency management plans for each of 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), the tunnels and tunnel portals including interchanges and substations, and operation, maintenance and emergency management procedures for flood protection works.	Supported.
SW8	SW8	Minimise impacts from waterway modifications Where waterway or flow regime modification is necessary, modifications will be designed and undertaken in a way that mitigates to the extent practicable the effects of changes to flow and minimises, to the extent practicable, the potential for erosion, sediment plumes, impacts on bed or bank stability and exposure or mobilisation of contaminated material during construction and operation to the requirements of Melbourne Water or the relevant drainage authority. Waterway modifications are to be designed and undertaken in a way that supports the visual and aesthetic amenity and environmental conditions (including habitat, connectivity, refuge and hydraulic conditions) to support aquatic ecosystems of the waterways having regard to relevant strategies, policies and plans for that waterway and in consultation with Melbourne Water or the relevant drainage authority.	Supported.
SW9	SW9	Maintain bank stability Develop and implement appropriate measures to minimise erosion and protect bank stability of waterways affected by construction or operation activities both directly or indirectly (for example as a result of site access), to the requirements of Melbourne Water or the relevant drainage authority.	Supported.
SW10	SW10	Provide for access to Melbourne Water and other drainage assets Provide adequate clearances and access for ongoing maintenance of Melbourne Water and other drainage authority assets to the requirements of the relevant drainage authority.	Supported.
SW11	SW11	Adopt Water Sensitive Urban and Road Design Adopt and implement water sensitive urban design and integrated water management principles in the stormwater treatment design in consultation with the relevant flood plain manager, drainage authority, asset owner or land manager and in general accordance with the Urban Design Strategy, the specifications of the relevant local council as applicable, and VicRoads Integrated Water Management Guidelines (June 2013), the Victorian Stormwater Committee's Victoria Best Practice Environmental Management Guidelines for Urban Stormwater (as published by CSIRO in 1999 with assistance from EPA Victoria and others) and the DELWP Integrated Water Management Framework for Victoria (September 2017).	Supported.
SW12	SW12	Minimise impacts on irrigation of sporting fields Maintain existing storage and available water supply of a quality that is suitable for the irrigation of sporting fields impacted by the project as necessary in consultation with the impacted stakeholders.	Supported.
SW13	SW13	Consider climate change effects The flood risk assessment (as required by EPR SW6) must consider current climate conditions as well as the potential effects of climate change on pre and post work scenarios for future climate conditions (ie increased rainfall intensity and sea-level rise) as predicted at the end of the asset's design life using RCP8.5 projections from CSIRO to the requirements of Melbourne Water or the relevant drainage authority.	Supported.

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SW14	SW14	Meet existing water quality treatment performance Retain or replace existing water quality treatment assets to meet or exceed water quality treatment performance as originally designed for that asset. In consultation with relevant asset owner or land manager, consider climate change effects and the potential for improved treatment outcomes where practicable.	Supported.
SW15	SW NEW1	Water Sensitive Urban Design asset transfer strategy Prepare a strategy identifying Water Sensitive Urban Design assets constructed as part of the Project to be transferred to public authorities. The strategy must include a process to consult with relevant asset managers to confirm the relevant delivery and maintenance standards to be met.	Supported.
16. Sustainability and Climate Change (SCC)			
SCC1	SCC1	Implement a Sustainability Management Plan North East Link Project must set sustainability targets and specify ratings to be achieved under the Infrastructure Sustainability Council of Australia's Infrastructure Sustainability Rating Tool. Contractors must develop and implement a Sustainability Management Plan that contains measures to meet, as a minimum, the sustainability targets and specified ratings.	Supported.
SCC2	SCC2	Minimise greenhouse gas emissions Integrate sustainable design practices which are best practice for major infrastructure projects into the design process and implement these to minimise, to the extent practicable, greenhouse gas emissions arising from construction, operation and maintenance of North East Link. These measures will, as a minimum, include the following (except where otherwise agreed with EPA Victoria): • Achieve at least a 30% reduction in carbon emissions from the construction of North East Link against an Infrastructure Sustainability Council of Australia (ISCA) verified base case calculated in accordance with their independent standards • Use a minimum of 50% of renewable energy for all electricity used to construct North East Link. (IS v1.2 Ene-2 Level 1.5) • Achieve net zero emissions in the operation and maintenance of North East Link (excluding emissions from traffic) Reduce the amount of Portland Cement content in concrete across the project by a minimum of 30% against Green Building Council of Australia reference mix design levels subject to durability and strength requirements.	Supported.
SCC3	SCC3	Apply best practice measures for energy usage for tunnel ventilation and lighting systems Best practice measures for energy usage are to be applied for the tunnel ventilation and lighting systems in accordance with the Protocol for Environmental Management (Greenhouse Gas Emissions and Energy Efficiency in Industry), the EPA Victoria Works Approval and the EPA Victoria Licence.	Supported.
SCC4	SCC4	Minimise and appropriately manage waste Develop and implement management measures for waste (excluding soils) minimisation during construction and operation in accordance with the *Environment Protection Act 1970* waste management hierarchy and management options, to address: • Litter management • Construction and demolition wastes including, but not limited to, washing residues, slurries and contaminated water • Organic wastes • Inert solid wastes.	Supported.
SCC5	SCC5	Minimise potable water consumption Stormwater, recycled water and groundwater inflow to tunnels or other water sources must be used in preference to potable water for construction activities, including concrete mixing and dust control, where this is available, practicable, of suitable quality, and meets health and safety requirements.	Supported.

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17. Traffic and Transport (TT)			
T1	T1	Optimise design performance Optimise the design of the works in consultation with appropriate road management authorities, public transport authorities, relevant land managers and local councils as part of the detailed design process to: • Minimise adverse impact on travel times for all transport modes, including walking and cycling • Maintain, and where practicable, enhance the traffic movements at interchanges and adjacent intersections within the project boundary • Design the road, walking and cycling and public transport elements to meet relevant road and transport authority requirements • Maintain, and where practicable, enhance pedestrian movements, bicycle connectivity, and shared use paths, including access (both vehicular and pedestrian) to public open space and reserves • Work with relevant public transport authorities and road authorities to minimise impacts on buses, trams and rail and, where practicable, enhance public transport facilities and services that cross or run parallel to the alignment of North East Link • Replace and enhance commuter car parking, where affected by the Project, in consultation with the Department of Transport • Minimise loss of other car parking in consultation with relevant local councils and other stakeholders.	Supported in principle. Include direct consultation with affected residents where it involves local access to roads.
T2	T2	Transport Management Plan(s) (TMP) Prior to commencement of relevant works, develop and implement Transport Management Plan(s) (TMP) to minimise disruption to affected local land uses, traffic, car parking, public transport (rail, tram and bus), pedestrian and bicycle movements and existing public facilities during all stages of construction. The TMP must be informed and supported by an appropriate level of transport modelling and must include: • Requirements for maintaining transport capacity for all travel modes in the peak demand periods • Requirements for limiting the amount of construction haulage during the peak demand periods • A monitoring program to assess the effectiveness of the TMPs on all modes of transport • Where monitoring identifies adverse impacts, implement practicable and appropriate mitigation measures • Consideration of construction activities for other relevant major projects occurring concurrently with construction activities for North East Link and potentially impacting modes of transport in the same area • Potential routes for construction haulage and construction vehicles travelling to and from the project construction site, recognising sensitive receptors and avoiding the use of local streets where practicable • Suitable measures, developed in consultation with emergency services, to ensure emergency service access is not inhibited as a result of project construction activities • Provision of alternative parking where practicable to replace public, private and commuter parking lost as a result of project construction activities • Requirements to minimise impacts on local streets, community and commercial facilities by providing parking for construction workers at construction compounds where practicable • Measures to ensure connectivity and safety for all transport network users during construction • Measures to limit the extent of road closures • Consultation with the Department of Transport ~~and~~ relevant transportation authorities and local Councils. A TMP may be split into precincts where appropriate but must consider other precinct TMPs through the Transport Management Liaison Group as per EPR T3. TMPs must be submitted to the relevant authority for approval.	Supported.

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T3	T3	Transport Management Liaison Group A Transport Management Liaison Group (TMLG) must be established and convene prior to the commencement of any works that may impact on existing roads, paths or public transport infrastructure. The TMLG must include representatives from the State, the Department of Transport, emergency services, the project, relevant transportation authorities and relevant local councils. The TMLG will be a forum for exchange of information and discussion of issues associated with Transport Management Plans. This must include review of proposed haulage routes for construction sites to minimise reliance on a single haulage route between Bell Street and the M80 Ring Road and facilitate different sites using different haulage routes. The TMLG must be provided with the Transport Management Plans, details as to timing of implementation, information about construction traffic monitoring conducted by the project, relevant sections of road safety audit reports and other reports, as relevant. Where construction activities have the potential to significantly impact on specific stakeholder or community group facilities, the TMLG should be satisfied that there has been adequate consultation to inform the Transport Management Plans. The TMLG must meet at least monthly until the completion of construction.	Supported in principle. TMLG to consider inviting representatives from stakeholder and community groups to relevant meetings.
T4	T4	Road safety design Undertake independent road safety audits after each stage of detailed design and during and after construction. The project design and operational activities must meet all relevant road and transport authority requirements with respect to transport network user safety.	Supported.
T5	T5	Traffic monitoring Undertake traffic monitoring on selected roads (arterial and non-arterial) identified in consultation with the relevant transportation authorities and local council pre-construction, at six monthly intervals during construction, and up to two years after construction is complete. As part of the selection process, consideration must be given to roads that carry public transport services. Ensure any adverse impacts of the Project are mitigated by implementing ~~Implement~~ local area traffic management works, or other works as required in consultation with the local relevant councils. Develop and implement traffic performance management to monitor conditions during construction. Real time traffic information must be provided to drivers.	Supported in principle. Subject to a review of ongoing traffic monitoring, a Local Area Traffic Management Strategy may be required.