

MORDIALLOC BYPASS PROJECT INQUIRY AND ADVISORY COMMITTEE

ENVIRONMENTAL PERFORMANCE REQUIREMENTS

This table is an initial response to the issues raised in the evidence and public submissions as at the date of the document and will be updated during the course of the hearing. It is made subject to the further submissions of MRPV including its formal right of reply to the IAC.

EPR	Project phase	Comment
<p><b>EM1 Environmental Management Strategy</b></p> <p><del>The Contractor must prepare</del> an Environmental Management Strategy consistent with the Environmental Management Framework (EMF) <u>approved by which will be prepared to the satisfaction of</u> the Minister for Planning under the Incorporated Document applicable to the project. The Environmental Management Strategy is to demonstrate how the EMF and EPRs will be implemented in the design and construction of the project and is to be approved by the <u>Major Transport Infrastructure Authority (MTIA) State</u> prior to the commencement of any works other than preparatory works referred to in the Incorporated Document.</p> <p>The Environmental Management Strategy must incorporate an Environmental Management System that complies with AS/NZS ISO 14001: 2015 <i>Environmental management systems – Requirements with guidance for use.</i></p> <p><del>The EMF must be updated and re-assessed by the Minister for Planning for traffic lanes to be added to the project in the future.</del> <u>The approved Environmental Management Strategy must be made publicly available for at least five years after the commencement of operation of the project.</u></p>	<p><u>Design, Construction</u></p>	<p><u>In response to the submission of Kingston City Council.</u></p>
<p><b>EM2 Environmental management plans</b></p> <p>Prepare and implement a Construction Environmental Management Plan (CEMP), <del>Operations Environmental Management Plan (OEMP)</del> and other management plans as required by the EPRs in accordance with the Environmental Management Strategy, <u>and prepare and implement an Operations Environmental Management Plan (OEMP) as required by the EPRs in accordance with the Environmental Management Framework.</u> All plans must be prepared to the satisfaction of <del>MTIA MRPA</del> or the authority specified <u>in</u> the EPRs. <u>Plans that apply to the operation phase of the project, including the OEMP, must be prepared in conjunction with VicRoads.</u> All plans specified in</p>	<p>All</p>	<p><u>In response to the submission of VicRoads, in response to the change from MRPA to MTIA, and to improve drafting.</u></p> <p><u>To clarify that the OEMP will be prepared in accordance with EMF not under the EMS.</u></p> <p><u>In response to recommendation of Helen Jones (expert report, section 4.3).</u></p>

EPR	Project phase	Comment
<p>the EPRs must be implemented.</p> <p>The CEMP must be prepared in accordance with Environment Protection Authority (EPA) Publication 480 <i>Environmental Guidelines for Major Construction Sites</i> (EPA Victoria 1996).</p> <p>The process for development and implementation of the CEMP and other management plan(s) must include consultation with the Kingston City Council, Greater Dandenong City Council, VicRoads, Melbourne Water and EPA Victoria as relevant. These consultation processes must be described in the Environmental Management Strategy. The CEMP and <a href="#">other</a> management plan(s) <a href="#">must be integrated and</a> must be approved by <a href="#">MTIA</a> <del>the State</del> prior to the commencement of works (except for preparatory works referred to in the Incorporated Document). The OEMP must be approved by the <a href="#">MTIA</a> <del>State</del> prior to opening the project to the public.</p>		
<p><b>EM3</b>    <b>Environmental complaints management</b></p> <p>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 <i>AS/NZS 10002: 2014 Guidelines for Complaint Management in Organisations</i>.</p>	Construction	
<p><b>EM4</b>    <b><a href="#">Independent environmental auditor</a></b></p> <p><a href="#">Appoint a suitably qualified Independent Environmental Auditor to review and certify the Environment Management Strategy, CEMP and other management plans as required by the EPRs, in accordance with the Environmental Management Framework. During construction audit reports must be provided to MTIA on a regular basis as appropriate.</a></p>	<a href="#">Design, Construction</a>	<a href="#">In response to the submission of Kingston City Council.</a>
<p><b>AQ1</b>    <b>Air quality (operation)</b></p> <p>The project must be designed and constructed to minimise air quality impacts during operation and to ensure the requirements of relevant legislation, policies and guidelines are met, including but not limited to:</p> <ul style="list-style-type: none"> <li>• <i>State Environment Protection Policy (Air Quality Management)</i></li> <li>• <i>State Environment Protection Policy (Ambient Air Quality).</i></li> </ul>	All	

EPR		Project phase	Comment
<b>AQ2</b>	<p><b>Air quality (construction)</b></p> <p>Measures to minimise dust, odour and other air emissions must be implemented in accordance with relevant legislation, policies and guidelines including, but not limited to:</p> <ul style="list-style-type: none"> <li>EPA Victoria Publication 480: <i>Environmental Guidelines for Major Construction Sites</i>;</li> <li><a href="#">VicRoads Contract Specification Standard Section 177, with PM10 monitoring undertaken for both residential and commercial receptors.</a></li> </ul>	Construction	<a href="#">In response to the recommendation of Ian Wallis (expert report, section 4.3).</a>
<b>B1</b>	<p><b>Fauna habitat</b></p> <p>Direct and indirect impacts on fauna must be minimised by preserving and enhancing habitat and facilitating habitat connectivity where practicable. This will be achieved through implementation of (as a minimum):</p> <ul style="list-style-type: none"> <li>fauna crossings, including culverts modified for fauna movement between the Braeside Park wetlands and Woodlands Industrial Estate wetlands (minimum of 3 culverts), and between the Waterways wetland waterbodies south of Governor Road (minimum of 2 culverts)</li> <li><a href="#">multi-function fauna barriers, to limit fauna mortality and limit disturbance to surrounding habitat, at the following areas, subject to detailed design:</a> <ul style="list-style-type: none"> <li><a href="#">Braeside Park: on the east side of the new roadway, provision of a 2 metre high barrier extending from Lower Dandenong Road to Park Way, transitioning to a 3 metre high barrier to be provided from Park Way to Governor Road</a></li> <li><a href="#">Woodlands Wetlands: on the west side of the new roadway, provision of a 4 metre high barrier extending from Park Way to the south approximately 750 metres, transitioning to a 3 metre high barrier to be provided from that location to Governor Road</a></li> <li><a href="#">Waterways Wetlands (north-west): on the west side of the new roadway, provision of a 2 metre high barrier extending from Governor Road to the south approximately 600 metres, transitioning to a 1 metre high barrier to be provided from that location to Bowen Park Way</a></li> <li><a href="#">Waterways Wetlands (north-east): on the east side of the new roadway, provision of a 2 metre high barrier extending from Governor Road to the</a></li> </ul> </li> </ul>	All	<a href="#">In response to the recommendation of Rodney van der Ree (expert report, sections 4.3.1 and 4.3.4).</a>

EPR	Project phase	Comment
<p><a href="#">south approximately 200 metres, transitioning to a 2.5 metre high barrier to be provided from that location to the south approximately 175 metres, transitioning to a 3 metre high barrier to be provided from that location to the south approximately 200 metres, transitioning to a 2.5 metre barrier to be provided from that location to Bowen Park Way</a></p> <ul style="list-style-type: none"> <li>– <a href="#">Waterways Wetlands (bridge structure): provision of a 3 metre high barrier on both sides of the new roadway bridge structure, extending from Bowen Park Way south to the Melbourne Water Levy</a></li> <li>• <del>multi-function fauna barriers to limit fauna mortality, limit disturbance to surrounding habitat areas and encourage culvert use by fauna between Braeside Wetlands and Woodlands Wetlands, and between the Waterways Wetland waterbodies south of Governor Road</del></li> <li>• <del>a low fauna barrier to limit fauna mortality and encourage culvert use on the eastern side of the new roadway, north of the Parks Victoria office and adjacent to Braeside Park</del></li> <li>• wildlife friendly fencing <a href="#">that does not use barbed wire, including</a> to control human and dog access to Braeside Wetlands and Braeside Park from the shared user path or roadway</li> <li>• landscaping including: <ul style="list-style-type: none"> <li>– the use of site-specific indigenous species</li> <li>– creating or revegetating habitat that maximises connectivity <a href="#">and minimises predation risk</a> at fauna crossing points and under the constructed bridge over Waterways wetlands</li> <li>– <a href="#">open wetland and grassy habitat where appropriate, including swales adjacent to fauna barriers</a></li> <li>– <a href="#">reinstatement of vegetation in areas of the Waterways Wetlands disturbed by the project, including planting of wetlands species in accordance with the landscape plans (EPR LV1)</a></li> </ul> </li> <li>• <a href="#">a dual bridge structure at Mordialloc Creek/Waterways wetland to allow light penetration and facilitate fauna movement.</a></li> </ul> <p><a href="#">The multi-function fauna barriers must achieve acoustic performance of at least <math>R_w + C_{tr} 25</math>.</a></p>		

EPR	Project phase	Comment
<p><a href="#"><u>During detailed design and in consultation with a suitably qualified specialist ecologist, refine proposed height, form and materiality of the multi-function fauna barriers to optimise the achievement of bird flight diversion objectives without compromising the achievement of other objectives.</u></a></p>		
<p><b>B2</b></p> <p><b>Lighting design</b></p> <p>Fauna sensitive lighting design principles must be incorporated into lighting design in sensitive areas around wetlands and Braeside Park. The design principles are:</p> <ul style="list-style-type: none"> <li>• Siting of lights: <ul style="list-style-type: none"> <li>– Use lights only where necessary and use the minimum brightness (lumens) possible</li> <li>– Site lighting columns away sites of ecological value to the extent possible</li> <li>– Minimise the height of lighting where possible.</li> </ul> </li> <li>• Fixtures: <ul style="list-style-type: none"> <li>– Use shielding to fully shield bulbs and lenses and to minimise light spill onto sites of ecological value</li> <li>– Avoid reflective surfaces under lights.</li> </ul> </li> <li>• Wavelengths: <ul style="list-style-type: none"> <li>– Use narrow-spectrum light sources to lower the range of species affected by lighting, and avoid blue and white wavelengths (4200 kelvin, ideally &lt;3000 kelvin)</li> <li>– Use long wavelength bulbs to minimise the emission of UV light.</li> </ul> </li> </ul>	Design, Construction	

EPR		Project phase	Comment
<b>B3</b>	<p><b>Native vegetation and habitat</b></p> <p>Native vegetation removal must be avoided, minimised and managed in accordance with the <i>Guidelines for the removal, destruction or lopping of native vegetation 2017</i> (Guidelines 2017). Native vegetation offsets will be required for the removal of native vegetation, with the area (in hectares) to be calculated and approved in accordance with these guidelines. No-go zones will be established to protect sensitive vegetation, trees and habitat areas that are not removed in accordance with the Guidelines 2017. No-go zones will be detailed, protected and managed in accordance with the Environmental Management Strategy developed as per EPR EM1.</p>	Design, Construction	
<b>B4</b>	<p><b>Fauna (construction)</b></p> <p>Minimise, monitor and document impacts on fauna during construction works, including:</p> <ul style="list-style-type: none"> <li>• obtaining all relevant permits under the Wildlife Act 1975</li> <li>• pre-clearing fauna surveys and relocation of fauna by qualified fauna handlers to nearby suitable habitat</li> <li>• directional temporary construction lighting to minimise lighting impact on sensitive fauna habitat</li> <li>• noise and vibration impacts on sensitive fauna</li> <li>• if construction works near wetlands occur between September and March, monitoring of birds before and at regular intervals during construction to assess disturbance impacts, with minimisation of noisy and high disturbance works where practicable</li> <li>• regular inspections of excavations/trenches</li> <li>• restricting heavy construction vehicles along Edithvale Road</li> <li>• adding high value habitat trees (including hollow-bearing and large trees) into no-go zones where suitable</li> <li>• closure of excavations/trenches at the end of each day, where practicable, inspection of excavation/trenches for fauna at the start of each day and immediately before backfilling</li> </ul>	Construction	

EPR	Project phase	Comment
<ul style="list-style-type: none"> <li>minimise barriers to fauna movement at the end of each day and installation of fauna movement devices where effective to create safe crossing opportunities</li> <li>enforced speed limits of 40km per hour within construction areas, outside of existing arterial roads.</li> </ul>		
<p><b>B5 Native vegetation (construction)</b></p> <p>Monitor, minimise and document impacts on retained/adjacent native vegetation, including:</p> <ul style="list-style-type: none"> <li>pre-clearing surveys for threatened flora in the Mordialloc Creek/Waterways wetland impact area are to be conducted by a suitably qualified ecologist, and plants are to be relocated to a suitable recipient site where considered practicable by the ecologist</li> <li>mapping and fencing of no-go zones and tree protection zones</li> <li>no site compound, temporary offices, hardstand, plant storage facility or stockpiles will be established within no-go zones, nor will any works be conducted in such areas</li> <li>environmental induction/training for construction personnel</li> <li>development and implementation of weed hygiene measures to avoid the spread or introduction of weeds during construction, including vehicle and equipment hygiene measures</li> <li>as far as practicable, re-establishing the landform and substrate under the Mordialloc Creek bridge following bridge construction.</li> </ul>	Construction	
<p><b>B6 Flora and Fauna (operation)</b></p> <p>Prior to opening the project to the public, a Flora and Fauna Monitoring and Management Plan must be prepared in consultation with Department of Environment and Energy (DoEE), Department of Environment, Land, Water and Planning (DELWP), Melbourne Water, Parks Victoria, VicRoads and any other relevant land manager. The plan must include flora and fauna monitoring by ecologists <del>for 5 years</del> after opening, including:</p> <ul style="list-style-type: none"> <li><u>annually, for 5 years, including one monitoring event immediately prior to</u></li> </ul>	Operation	<a href="#">In response to the recommendation of Rodney van der Ree (expert report, section 4.3.1).</a>

EPR	Project phase	Comment
<p><a href="#">opening</a></p> <ul style="list-style-type: none"> <li>• <a href="#">monitoring of</a> bird use of nearby wetlands (Woodlands Wetlands, Braeside Park Wetlands, and Waterways Wetlands) and threatened flora and weeds at the Waterways <a href="#">Wetlands</a>, <del>to include at least one monitoring event prior to opening</del></li> <li>• <a href="#">monitoring of measures to</a> <a href="#">allow</a> <del>improve</del> habitat connectivity for threatened fauna including Waterways bridge, fauna culverts, and revegetation</li> <li>• <a href="#">evaluation of measures (fencing and multi-function fauna barriers) to reduce wildlife and vehicle collisions.</a></li> </ul>		
<p><b>CL1</b>    <b>Soil Management Plan</b></p> <p>Prior to the commencement of works (other than preparatory works referred to in the Incorporated Document), a Soil Management Plan (SMP) must be prepared and implemented in accordance with relevant regulations, standards and best practice guidelines. The plan must be developed in consultation with EPA Victoria and address the management requirements associated with the handling, storage, reuse and/or disposal of soils (clean fill and contaminated spoil).</p> <p>The SMP must make provision for additional assessments to be conducted, where required, to more accurately locate sources of contamination and to refine management measures.</p> <p>The SMP must follow published EPA guidance on contaminated soil management and reuse on major infrastructure projects.</p> <p>The SMP must include an Acid Sulfate Soil Management Plan (EPR CL2) and management requirements for PFAS contaminated soils (see EPR CL6).</p>	Construction	
<p><b>CL2</b>    <b>Acid Sulfate Soil Management Plan</b></p> <p>Prior to the commencement of works (other than preparatory works referred to in the Incorporated Document), prepare an Acid Sulfate Soil Management Plan in consultation with EPA Victoria in accordance with the <i>Industrial Waste Management Policy (Waste Acid Sulfate Soils) 1999</i>, EPA Publication 655.1 <i>Acid Sulfate Soil and Rock</i>, and relevant EPA regulations, standards and best practice guidance. This plan must include:</p>	Construction	



EPR	Project phase	Comment
<ul style="list-style-type: none"> <li>• locations and extent of potential acid sulfate soils that could be disturbed or otherwise affected by the project</li> <li>• assessment of potential impact on human health, odour and the environment</li> <li>• measures to prevent oxidation of acid sulfate soils wherever possible, and</li> <li>• suitable sites for management, reuse or disposal of acid sulfate soils.</li> </ul>		
<p><b>CL3</b> <b>Passive landfill gas capture and venting</b></p> <p>A passive landfill gas capture and ventilation system must be developed where the roadway traverses the landfill area to facilitate the emission of landfill gas to the atmosphere so as to minimise accumulation of landfill gas below the roadway.</p> <p>The passive landfill gas capture and ventilation system must:</p> <ul style="list-style-type: none"> <li>• <a href="#">be designed in conjunction with VicRoads and EPA Victoria;</a></li> <li>• meet the landfill gas management requirements of the EPA's guideline <i>Best Practice Environmental Management: Siting, design, operation and rehabilitation of landfills</i> (EPA Victoria 2015) and <i>Workplace Exposure Standards for Airborne Contaminants</i> (Safe Work 2013).</li> </ul> <p>During design, provision must be made for gas protection measures to be provided at all underground services, pits and other voids within the road reserve in locations where landfill gas is emitted, or has the potential to migrate to.</p> <p>The passive landfill gas capture and ventilation system(s) must be maintained for the operational life of the project except where otherwise agreed to by EPA Victoria.</p>	All	<a href="#">In response to the submission of VicRoads.</a>
<p><b>CL4</b> <b>Landfill Gas Management Plan (Construction)</b></p> <p>Prior to the commencement of works (other than preparatory works referred to in the Incorporated Document), a Landfill Gas Management Plan (Construction) must be prepared (EPR EM2). The plan must be developed in consultation with EPA Victoria and in accordance with relevant regulations, standards and best practice guidelines including, but not limited to, <i>Best Practice Environmental Management: Siting, design, operation and rehabilitation of landfills</i> (EPA Victoria 2015) and <i>Workplace Exposure Standards for Airborne Contaminants</i></p>	Construction	

EPR	Project phase	Comment
<p>(Safe Work 2013).</p> <p>The plan must detail specific monitoring and risk mitigation requirements that are to be implemented during the construction phase to reduce landfill gas-related risks to neighbouring land users, site workers, plant and equipment.</p> <p>The Landfill Gas Management Plan must:</p> <ul style="list-style-type: none"> <li>• reference applicable regulatory requirements</li> <li>• detail the nature and extent of contamination</li> <li>• include details of design and construction requirements for passive landfill gas and venting systems</li> <li>• define roles and responsibilities</li> <li>• detail landfill gas monitoring and reporting requirements</li> <li>• include monitoring requirements for explosive atmospheres and fire risks during construction</li> <li>• include guidelines for work areas which constitute confined spaces, and</li> <li>• include requirements for use of spark and flame emitting equipment, tools or plant during construction works.</li> </ul>		
<p><b>CL5 Landfill Gas Management Plan (Operation)</b></p> <p>Prior to the completion of construction of the passive landfill gas capture and venting system (EPR CL3) a monitoring and management program for surface, sub-surface and internal/underground voids, pits and service trenches will be specified within a Landfill Gas Management Plan (Operation). The plan must assess ongoing risk associated with landfill gas generated by the former landfill(s) in the northern portion of the project area.</p> <p>The plan must outline procedures for any future works within the project area, means of protection of in-ground gas protection/mitigation systems and monitoring and management requirements.</p>	Operation	
<p><b>CL6 PFAS Management Plan</b></p> <p>Prior to the commencement of works (other than preparatory works referred to in the Incorporated Document), a site-specific PFAS management plan must be</p>	Construction	

EPR	Project phase	Comment
<p>prepared in accordance with EPA Publication 1669.2 <i>Interim position statement on PFAS</i> (EPA Victoria 2018) and the Heads of EPAs Australia and New Zealand <i>PFAS National Environmental Management Plan</i> (PFAS NEMP) (HEPA 2018).</p>		
<p><b>CL7</b>    <b>Landfill material</b></p> <p>Structures that penetrate the landfill must be designed and constructed to avoid the creation of additional pathways for contaminants to move from leachate to surrounding groundwater and minimise the need for landfill material to be removed.</p>	Design, Construction	
<p><b>E1</b>    <b>Business Disruption Plan</b></p> <p>During design and construction, impacts on local businesses must be minimised through the preparation and implementation of a Business Disruption Plan. The Business Disruption Plan will be consistent with an approved Community and Stakeholder Engagement Management Plan (EPR S1) and include:</p> <ul style="list-style-type: none"> <li>• transport planning prior to road closures to minimise impacts on business access and parking (EPR T1)</li> <li>• a process for communication with traders and businesses</li> <li>• management of potential amenity impacts during construction and operation (EPR AQ1, AQ2, NV2, and NV3).</li> </ul>	Design, Construction	
<p><b>E2</b>    <b>Utility assets</b></p> <p>Through detailed design and construction, the impacts on utility assets must be minimised to the extent practicable including, but not limited to:</p> <ul style="list-style-type: none"> <li>• stormwater and sewer assets</li> <li>• electricity transmission assets (overhead and underground lines)</li> <li>• gas and fuel pipelines</li> <li>• communications lines (e.g. fibre optic cables).</li> </ul> <p>If relocations are required to facilitate the project, utility assets must be protected and, where required, modified to the satisfaction of the asset owners.</p>	Design, Construction	

EPR		Project phase	Comment
<b>GG1</b>	<p><b>Greenhouse gas monitoring and reporting</b></p> <p>Minimise and manage greenhouse gas emissions (GHG) arising from construction, operation and maintenance through the integration of sustainable design practices.</p> <p>Create a Sustainability Management Plan (SMP) which includes mandatory actions to monitor and report construction phase greenhouse gas emissions and to benchmark predicted operational phase greenhouse emissions in accordance with Mat-1 and Ene-1 credits of the Infrastructure Sustainability (IS) rating tool (v1.2).</p>	All	
<b>GG2</b>	<p><b>Emissions reduction</b></p> <p>The materials and equipment for the project must be selected with the intent to reduce the project associated GHG emissions during the construction and operational phases.</p> <p>A verifiable improvement in project GHG emissions must be achieved by achieving a minimum of Mat-1 (Level 1) and Ene-1 (Level 2) credits of the Infrastructure Sustainability (IS) rating tool (v1.2).</p> <p>A minimum of 20% of construction phase energy must be purchased from an accredited GreenPower product.</p>	All	
<b>H1</b>	<p><b>Cultural Heritage Management Plan</b></p> <p>Comply with and implement the Cultural Heritage Management Plan (CHMP) approved under the <i>Aboriginal Heritage Act 2006</i>.</p>	Construction	
<b>H2</b>	<p><b>Unidentified non-Aboriginal historical archaeological sites</b></p> <p>An archaeological discovery protocol must be prepared that specifies measures to avoid and minimise impacts on any previously unidentified historical archaeological sites and values discovered during construction. The management protocol must be consistent with the requirements of the <i>Heritage Act 2017</i> and must be developed in consultation with Heritage Victoria. The protocol must include procedures for ceasing work if human remains or archaeological artefacts are discovered, notifying Heritage Victoria of the find, obtaining consent to deal with the remains or artefact, and dealing with the remains or artefact in accordance with the consent.</p>	Construction	

EPR		Project phase	Comment
H3	<p><b>Non-Aboriginal heritage sites</b></p> <p>The project must be designed to avoid damage to the Braeside Park Precinct brick buildings.</p> <p>Prior to the commencement of works that have the potential to impact on heritage structures or places, appropriate heritage protection plans must be developed for inclusion in the CEMP and physical protection measures must be implemented to avoid or mitigate potential impacts.</p>	Design, Construction	
LV1	<p><b>Landscape <u>and urban</u> design</b></p> <p>Landscape <u>and urban</u> design plans must be developed prior to the commencement of works (other than preparatory works referred to in the Incorporated Document) and must <u>respond to or</u> be based on relevant standards and the best practice principles of the:</p> <ul style="list-style-type: none"> <li>• <u><a href="#">Landscape Concept Plan (VicRoads, August 2018) and Landscape and Urban Design Strategy (Aspect Studios, September 2018) for the project</a></u></li> <li>• <u><a href="#">Good Design Principles - Transport (OVGA 2015)</a></u></li> <li>• <u><a href="#">Urban Design Charter for Victoria</a></u> and <del>the</del></li> <li>• <u><a href="#">Urban Design Guidelines for Victoria (DELWP 2017)</a></u>.</li> </ul> <p>The landscape <u>and urban</u> design plans must <u>be prepared by suitably qualified professionals in consultation with relevant stakeholders, including Kingston City Council, and must</u> incorporate, where practicable, <u>high quality integrated</u> mitigation measures to minimise the landscape and visual impact associated with the project, including in respect of:</p> <ul style="list-style-type: none"> <li>• <u>open spaces and recreational spaces</u></li> <li>• <u>bridges and structures</u></li> <li>• <u>significant views from the public domain</u></li> <li>• community facilities</li> <li>• residential interfaces</li> <li>• industrial interfaces, and</li> </ul>	All	<u><a href="#">In response to the recommendation of Kirsten Bauer (expert report, section 5).</a></u>

EPR	Project phase	Comment
<ul style="list-style-type: none"> <li>• heritage assets.</li> </ul> <p>The landscape <u>and urban</u> design plans must:</p> <ul style="list-style-type: none"> <li>• <u>include vegetation screening appropriate for visually impacted community spaces, including residential areas and public open spaces</u></li> <li>• <u>in high traffic areas and at sensitive interfaces make use of mature tree stock where appropriate in combination with tube stock and advanced tree plantings to reduce the initial visual impacts</u></li> <li>• <u>ensure that visually apparent elements (including acoustic and other barriers, bridges and abutments) are the subject of an integrated landscape and urban design process</u></li> <li>• <u>minimise overshadowing by acoustic barriers of residential properties</u></li> <li>• <u>utilise colours and materials derived from the existing landscape and ecological environment</u></li> <li>• make use of appropriate ecologically sensitive <u>indigenous</u> planting</li> <li>• consider existing landscape character and sensitivities</li> <li>• enhance key gateway streetscapes</li> <li>• maintain and enhance existing pedestrian connections, where practicable, <u>and ensure that the underpass at Braeside Park achieves best practice urban design principles</u></li> <li>• be developed in consultation with appropriate Traditional Owner groups to provide direction on appropriate landscape typologies, land management practices and principles, <u>and</u></li> <li>• incorporate requirements of EPR LV2 <u>and EPR LV3</u>, <del>and</del></li> <li><del>• make use of advance tree plantings, where appropriate, to reduce the initial visual impact.</del></li> <li><del>• In consultation with relevant stakeholders, the landscape design plans must include vegetation screening appropriate for visually impacted community spaces, including residential areas and public open spaces, must be designed and implemented.</del></li> </ul>		

EPR	Project phase	Comment
Landscaping <a href="#">and urban design for the project</a> in accordance with the landscape <a href="#">and urban</a> design plans must be implemented and maintained (EPR LV7).		
<b>LV2 Crime prevention through environmental design</b> Landscape <a href="#">and urban</a> design plans must protect and, where practicable, improve access to, and amenity for, potentially affected residents, open spaces, pedestrian and cyclist networks, social and community infrastructure and commercial facilities, whilst meeting the requirements of EPR B2. This includes implementing the principles and guidelines of <i>Crime Prevention Through Environmental Design</i> (CPTED) and <i>Urban Design Guidelines for Victoria</i> (DELWP 2017) and maximising passive surveillance levels as far as practicable.	All	<a href="#">In response to the amendments proposed to EPR LV1 above.</a>
<b>LV3 Reinstatement works</b> Within 12 months of the commencement of operation, the public open spaces, vegetation cover and facilities disturbed by temporary works must be reinstated to the reasonable satisfaction of the relevant land manager.	Operation	
<b>LV4 Lighting (operation)</b> All lighting of permanent structures must be designed to minimise light spillage and protect the amenity of adjacent land uses to the extent practicable. Lighting in sensitive areas around wetlands and Braeside Park must also comply with EPR B2.	All	
<b>LV5 Light spillage (construction)</b> All lighting during construction must be managed in such a way as to minimise light spill to surrounding residential land uses, sensitive areas including wetlands and Braeside Park, and neighbourhoods. The strategies and techniques to do so must be included in the CEMP.	Construction	
<b>LV6 Tree removal</b> Minimise the removal of mature trees, particularly large amenity trees and those within or connected to public open spaces, that are not currently protected by no-go zones as described in EPR B3.	Construction	
<b>LV7 Landscape management strategy</b>	Construction, Operation	

EPR	Project phase	Comment
<p>A landscape management strategy must be developed and implemented to ensure healthy growth of planted vegetation. The strategy will include <a href="#">watering and weed management</a>.</p>		
<p><b><a href="#">LV8</a></b> <b><a href="#">Independent urban design review</a></b>  <a href="#">A suitably qualified Independent Urban Design Advisor must be appointed for the project by MTIA. The landscape and urban design plans must be referred to the Independent Urban Design Advisor for review against the relevant EPRs and project objectives.</a></p>	<a href="#">Design</a>	<a href="#">In response to the submission of Kingston City Council.</a>
<p><b>NV1</b> <b>Noise and vibration (design)</b>  Noise and vibration impacts on residents during operation must be minimised by the inclusion of appropriate noise attenuation measures and road surface specifications in the design. Road traffic noise emissions must comply with the <i>Project Objective Noise Levels</i>:</p> <ul style="list-style-type: none"> <li>• 63dBA L<sub>10, 18Hr</sub> for the new bypass, and</li> <li>• 68dBA L<sub>10, 18Hr</sub> for the Mornington Peninsula Freeway works</li> <li>• For noise-sensitive receivers as defined in the VicRoads <i>Traffic Noise Reduction Policy</i>.</li> </ul> <p><a href="#">Design year 2031 must be used for the purpose of traffic noise modelling as part of the detailed design development.</a></p>	Design	<a href="#">In response to the recommendation of Mike Dowsett (expert report, section 6).</a>
<p><b>NV2</b> <b>Construction Noise and Vibration Management Plan</b>  A Construction Noise and Vibration Management Plan (CNVMP) prepared in consultation with EPA Victoria must be implemented during construction to:</p> <ul style="list-style-type: none"> <li>• manage noise in accordance with EPA Publication 1254 Noise Control Guidelines, EPA Publication 480 Environmental guidelines for major construction sites and VicRoads Noise Guidelines, unless otherwise specified in the CNVMP</li> <li>• include measures to manage vibration in accordance with human response to vibration targets (BS 6472 <i>Evaluation of human exposure to vibration in buildings (1–80Hz)</i>) and structural damage targets (DIN 4150 <i>Structural vibration - Effects of vibration on structures</i>).</li> </ul>	Construction	



EPR	Project phase	Comment
<p>The CNVMP must include requirements for substituting high noise or vibration construction plant or processes with a lower noise or vibration option. The CNVMP must make provision for <i>ad hoc</i>, targeted and routine noise and vibration monitoring to inform management and mitigation. The CNVMP should highlight potential unavoidable night works and consult with relevant stakeholders, including EPA, prior to construction.</p>		
<p><b>NV3 Traffic noise verification</b></p> <p>Traffic noise must be measured between 6 to 12 months after opening of the project, in accordance with the VicRoads <i>Traffic Noise Measurement Requirements for Acoustic Consultants – September 2011</i>, to verify conformance with the external traffic noise performance requirements set out in EPR NV1. Remedial action must be completed by Final Completion (at the completion of the Defects Liability Period) if the performance requirements set out in EPR NV1 are not met.</p>	Operation	
<p><b>S1 Community and Stakeholder Engagement Plan</b></p> <p>A Community and Stakeholder Engagement Plan must be prepared in consultation with Kingston City Council and Greater Dandenong City Council prior to the commencement of works (other than preparatory works referred to in the Incorporated Document). The preparation of the plan must give consideration to relevant guidelines and the Victorian Auditor General Office: <i>Better Practice Guide: Public Participation in Government Decision Making</i>.</p> <p>The Community and Stakeholder Engagement Plan must:</p> <ul style="list-style-type: none"> <li>• identify all project activities that potentially impact on community and business operations, and provide for well-coordinated communication and engagement processes in relation to each activity</li> <li>• outline key messages</li> <li>• ensure that project communications and engagement activities reflect the needs and profiles of local communities</li> <li>• ensure that consultation addresses the needs of vulnerable groups that will be impacted by the project, such as the elderly, socio-economically disadvantaged groups and children</li> </ul>	All	

EPR	Project phase	Comment
<ul style="list-style-type: none"> <li>• address the needs of users of community facilities impacted by the project</li> <li>• set out processes and measures to provide sufficient prior notice to key stakeholders and other potentially affected stakeholders of construction activities (including any staged works, early works, or out of hours works), significant milestones, changed traffic conditions, interruptions to utility services, changed access and parking conditions, and periods of predicted high noise and vibration activities, including contact details for complaints and enquiries</li> <li>• provide for any interested stakeholder to register their contact details to ensure that they are automatically advised of planned construction activities, project progress, mitigation measures and intended reinstatement measures, where applicable</li> <li>• include a complaints management process, as specified in EPR EM3.</li> </ul>		
<p><b>S2</b>     <b>Recreational facilities</b></p> <p>Where construction works have a direct impact on the use and enjoyment of recreational facilities, appropriate management measures must be implemented in cooperation with the relevant land manager(s) and affected stakeholder organisations. These measures would include arrangements for the provision of alternative facilities, where required, for the period of disruption.</p>	Construction	
<p><b>T1</b>     <b>Intersection and freeway design and performance</b></p> <p>Intersections and freeway facilities that are affected and/or proposed by the project will be designed and constructed to provide safe vehicle movements to the satisfaction of the responsible road management authority. The design of intersections and the freeway must meet VicRoads' design standards with analysis undertaken to ensure the proposed configuration will achieve acceptable operational performance.</p> <p>Road Safety Audits and/or Safe System Assessment in accordance with Austroads guidelines will be undertaken to maximise the safety potential of the project.</p>	All	
<p><b>T2</b>     <b>Transport Management Plan</b></p> <p>Prior to the commencement of works, TMP(s) must be developed and</p>	Construction	

EPR	Project phase	Comment
<p>implemented to minimise disruption (to the extent practicable) to affected local land uses, traffic, on-road public transport, pedestrian and bicycle movements and existing public facilities during all stages of construction. The plan(s) will comply with relevant standards and must be developed in consultation with Kingston City Council, Greater Dandenong City Council, VicRoads and public transport providers and be informed and supported by an appropriate level of transport analysis.</p> <p>The plan(s) must include:</p> <ul style="list-style-type: none"> <li>• a program to monitor impacts of construction activities to all modes of active and passive transport. Where monitoring identifies adverse impacts, practicable mitigation measures must be developed and implemented</li> <li>• consideration of cumulative impacts of other major projects operating concurrently in the local area</li> <li>• identify the route options for construction vehicles (including haulage of spoil and other heavy materials to and from the construction site) travelling to and from the project construction site, recognising sensitive receptors, and minimising the use of local streets</li> <li>• development of suitable measures to ensure emergency service access is not inhibited as a result of project construction activities (in consultation with emergency services)</li> <li>• provision for the minimisation of impacts on existing connectivity for pedestrians, cyclists, public transport and road vehicles as a result of construction, including the identification of alternative routes for pedestrians and cyclists and other measures to maintain connectivity and safety for pedestrians and cyclists</li> <li>• management of any temporary or partial closure of roads and traffic lanes, including provision for suitable routes for vehicles, cyclists and pedestrians, to maintain connectivity for road and footpath users</li> <li>• restrictions to the number of local roads to be used for construction-related transportation to minimise impacts on amenity, in consultation with the relevant road authorities, including at Edithvale Road (EPR B4)</li> <li>• reinstatement of access to open space, community facilities, commercial premises and dwellings if disrupted, as soon as practicable, and to an</li> </ul>		

EPR		Project phase	Comment
	<p>equivalent standard</p> <ul style="list-style-type: none"> <li>• provision for safe access points to laydown areas and site compounds</li> <li>• a communications strategy to advise affected users, potentially affected users, relevant stakeholders and the relevant road authorities of any changes to transport conditions in accordance with the Community and Stakeholder Engagement Management Plan (EPR S1).</li> </ul> <p>The plan must include specific measures for discrete components or stages of the works having the potential to impact on roads, shared use paths, bicycle paths, footpaths or public transport infrastructure.</p>		
<b>T3</b>	<p><b>Vehicle and pedestrian access</b></p> <p>Where formal vehicle and pedestrian access are altered during construction, such access must be replaced in accordance with relevant road design standards, as soon as practicable.</p>	Construction	
<b>W1</b>	<p><b>Water body health</b></p> <p>During design and operation, impacts on surface water quality and flow must be minimised through adoption of measures to:</p> <ul style="list-style-type: none"> <li>• <a href="#">minimise changes in water flows and quality to adjacent wetland areas; and</a></li> <li>• <a href="#">avoid an increase in discharge of pollutant loading (to higher than existing conditions levels) on beneficial uses due to the construction of the project in accordance with CSIRO <i>Best Practice Environmental Management Guidelines for Urban Stormwater (1999)</i> and Water Sensitive Road Design (WSRD).</a></li> </ul> <p>In addition, the project must incorporate spill containment at the outfalls which pose a high risk to sensitive receptors, including Waterways Wetlands, Woodlands Wetlands and Edithvale Wetlands.</p> <p>The design of surface water control measures for the project as a whole must comply with the VicRoads <i>Integrated Water Management Guidelines (2013)</i> and CSIRO <i>Best Practice Environmental Management Guidelines for Urban Stormwater (1999)</i>.</p>	<a href="#">All Design, Operation</a>	<a href="#">In response to the recommendation of Nic McCaffrey (expert report, section 4.3).</a>
<b>W2</b>	<b>Flood protection (operation)</b>	Design, Operation	

EPR	Project phase	Comment
<p>Changes to flood behaviour resulting from the project must meet the requirements of Melbourne Water's guideline "<i>Melbourne Water standards for infrastructure in flood prone areas</i>" <a href="#">to the satisfaction of Melbourne Water</a>.</p> <p>Design-specific maintenance requirements relating to floodwater, and that do not form part of standard VicRoads maintenance requirements, must be included in the Water Management and Monitoring Plan (EPR <a href="#">W5CL8</a>).</p>		
<p><b>W3 Surface water management (construction)</b></p> <p>Protect local waterways by applying best practice sedimentation and pollution control measures in accordance with EPA Victoria publication 480 <i>Environmental Guidelines for Major Construction Sites</i> and EPA publication 275 <i>Construction techniques for sediment pollution control</i> through the Construction Environmental Management Plan(s) and other plans. Implement a water collection and treatment system to ensure that stormwater discharges comply with the State Environment Protection Policy (<a href="#">Waters</a>) 2018 (<del>Waters of Victoria</del>) 2004 and Melbourne Water performance criteria. Such plans and systems should be prepared in consultation with relevant authorities before the commencement of works.</p>	Construction	<a href="#">In response to submission from EPA Victoria and recommendation of Rob Leslie (expert report, section 4.3.9).</a>
<p><b>W4 Flood protection (construction)</b></p> <p>During construction, the requirements of the "<i>Melbourne Water standards for infrastructure in flood prone areas</i>" must be complied with. Measures must be implemented to the satisfaction of Melbourne Water and in consultation with any other relevant drainage authority, to ensure that temporary construction activities do not increase flood risks (including flood levels, flows and velocities) to the surrounding areas. A flood management plan must be developed in consultation with and not objected by Melbourne Water for any temporary works.</p>	Construction	
<p><b>W5 Water Management and Monitoring Plan</b></p> <p>A Water Management and Monitoring Plan (WMMP) must be prepared in consultation with EPA Victoria and relevant water authorities, and be implemented prior to construction, during construction and for five years following opening the project to the public. The WMMP must incorporate both surface and groundwater monitoring.</p>	All	

EPR	Project phase	Comment
<p><a href="#">Monitoring should commence prior to the commencement of works (other than preparatory works referred to in the Incorporated Document) to establish baseline conditions.</a></p> <p>Incorporating the baseline data <del>collected to date</del>, the WMMP must include:</p> <ul style="list-style-type: none"> <li>• detail of the monitoring parameters, including the frequency and location of surface water monitoring points and groundwater monitoring bores</li> <li>• specific trigger levels (water quality in surface water bodies and groundwater bores) and details of contingency plans in the case trigger levels are exceeded</li> <li>• detailed reporting requirements</li> <li>• roles and responsibilities, not limited to: <ul style="list-style-type: none"> <li>– the owner of monitoring network assets</li> <li>– the manager of monitoring network assets and results</li> <li>– the party (or parties) undertaking monitoring (prior to construction, during construction and for five years following opening).</li> </ul> </li> </ul>		
<p><b>W6</b></p> <p><b>Surface water management (design and operation)</b></p> <p>The volume, peak flow and quality of surface water discharges during operation must have no adverse impact to the drainage network capacities in consultation with Melbourne Water, Kingston City Council and Greater Dandenong City Council, as appropriate.</p>	Design, Operation	