

**EDITHVALE AND BONBEACH LEVEL CROSSING REMOVAL 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 LXRA including its formal right of reply to the IAC.

EPR		Discipline	Comment
AH1	<p>Cultural Heritage Management Plan</p> <p>Comply with and implement any Cultural Heritage Management Plan approved under the <i>Aboriginal Heritage Act 2006</i> that applies to the projects.</p>	Aboriginal heritage	
AQ1	<p>Air quality (construction)</p> <p>Manage construction activities to minimise dust, odour and other emissions in accordance with EPA Victoria Publication 480 <i>Environmental Guidelines for Major Construction Sites</i>.</p>	Air Quality	
AQ2	<p>Air quality management</p> <p>Control the emission of smoke, dust, fumes and other pollution into the atmosphere during construction and operation, in accordance with the State Environment Protection Policy (Air Quality Management 2001) and State Environment Protection Policy (Ambient Air Quality) 1999.</p>	Air Quality	

EPR	Discipline	Comment
<p>B1 Business Disruption Plan</p> <p>Minimise impacts to local business through preparation and implementation of a business disruption plan. The business disruption plan must be consistent with an approved Community and Stakeholder Engagement Management Plan (EPR reference SC1) and include:</p> <ul style="list-style-type: none"> a. transport planning prior to road closures to minimise impacts to business access and parking (EPR reference T1) b. a process for communication with traders and businesses c. management of potential amenity impacts during construction (EPR references AQ1, AQ2, NV2, and NV3). 	Business	
<p>CL1 Spoil Management Plan</p> <p>Prior to construction (excluding preparatory works), prepare and implement a Spoil Management Plan(s) in accordance with relevant regulations, standards or best practice guidelines. The plan must be developed in consultation with EPA Victoria. The plan shall be prepared prior to the commencement of construction (excluding preparatory works) and include:</p> <ul style="list-style-type: none"> a. applicable regulatory requirements b. identifying nature and extent of spoil (clean fill and contaminated spoil) across the construction areas c. roles and responsibilities d. identification of management measures for storage, handling and transport of spoil for the protection of health, amenity and the environment e. identification, design and development of specific management measures for temporary stockpile areas f. identifying potential sites for management for disposal of any spoil <u>including consultation with Kingston City Council to identify nearby sites within Kingston City Council's municipality</u> g. monitoring and reporting requirements h. identifying locations and extent of any prescribed industrial waste (including asbestos) and characterising prescribed industrial waste prior to excavation 	CASS/ Contamination/ Spoil	<u>In response to matters arising during the hearing and to improve drafting.</u>

EPR		Discipline	Comment
	i. identifying suitable sites for disposal of prescribed industrial waste The Spoil Management Plan shall include an Acid Sulfate Soil Management Plan (refer to EPR reference CL2).		
CL2	<p>Acid Sulfate Soil Management Plan</p> <p>Prepare and implement an Acid Sulfate Soil Management Plan prior to construction of the project to the satisfaction of EPA Victoria, in accordance with the Industrial Waste Management Policy (<i>Waste Acid Sulfate Soils</i>) 1999, EPA Victoria Publication 655.1 <i>Acid Sulfate Soil and Rock</i>, and relevant EPA regulations, standards and best practice guidance in consultation with EPA Victoria. This plan will include:</p> <ul style="list-style-type: none"> a. identify locations and extent of potential acid sulfate soils. b. assess potential impact for human health, odour and the environment c. identify and implement measures to prevent oxidation of acid sulfate soils wherever possible d. identify suitable sites for management, reuse or disposal of acid sulfate soils. 	CASS/ Contamination/ Spoil	
CL3	<p>Waste management</p> <p>Manage wastes during the construction of the projects through development and implementation of a Construction Environmental Management Plan in accordance with EPA Victoria Publication 480 <i>Environmental Guidelines for Major Construction Sites 1996</i>, EPA Victoria Publication 347.1 <i>Bundling 2015</i>, Australian Standard AS1940 <i>Storage and Handling of Flammable and Combustible Liquids</i>, and relevant EPA Victoria and Victorian WorkCover Authority regulations, standards and best practice guidance that includes:</p> <ul style="list-style-type: none"> a. application of the waste management hierarchy in assessing waste management options b. contamination and waste management requirements (e.g. use of waste and recycling facilities, maintenance of a clean site policy) c. designated vehicle refuelling area d. chemical management procedures, such as minimising use and storage of chemicals on site, bunded storage facilities to ensure spills, washing residues, slurries or other contaminated water can be contained, and are managed/disposed of appropriately e. location and type of spill kits required 	CASS/ Contamination/ Spoil	

EPR		Discipline	Comment
	<ul style="list-style-type: none"> f. staff training and competence requirements g. use of well-maintained plant to minimise the potential for spills to occur h. procedures to remove, treat and/or dispose soil that becomes contaminated due to a fuel or chemical spill i. storage of litter in bins from which it cannot escape (temporary fencing may be used as a secondary containment measure for litter). 		
CL4	<p>Acidic and/or contaminated groundwater (construction)</p> <p>Develop and implement measures to manage acidic and/or contaminated groundwater, in accordance with the State Environment Protection Policy (Groundwaters of Victoria) 1997, State Environment Protection Policy (Waters of Victoria) 2004, State Environment Protection Policy (Prevention and Management of Contamination of Land) 2002, Water Industry Regulations 2006, and relevant EPA Victoria regulations, standards and best practice guidance, which must include:</p> <ul style="list-style-type: none"> a. a baseline groundwater quality assessment (taking into account site history) at least three months prior to commencement of construction works, where applicable b. implementing a system to manage and/or dispose of intercepted groundwater (if required) which may be a trade waste agreement with relevant utility authority or other measures in accordance with relevant guidelines and legislation (if a trade waste agreement is not granted) c. collection, treatment, disposal and handling of contaminated groundwater and/or slurries, including vapours d. monitoring of intercepted groundwater quality monitoring during construction and water quality monitoring at run-off containment areas e. implementing contamination plume management (if required) f. treating and monitoring impacted groundwater (including vapours) prior to disposal, in accordance with licence and/or agreement. 	CASS/ Contamination/ Spoil	
CL5	<p><u>Groundwater Quality Mitigation Plan. Acidic and/or contaminated groundwater (operation)</u></p> <p>Prepare and fund the implementation of a Groundwater Quality Mitigation Plan in consultation with the land manager of any affected land parcels to manage and mitigate any <u>negative</u> impacts from changes to groundwater quality and/or levels as a result of the projects.</p>	CASS/ Contamination/ Spoil	<u>In response to matters arising during the hearing and to improve drafting.</u>

EPR	Discipline	Comment
<p>The <u>Groundwater Quality Mitigation Plan plan</u> must <u>be prepared prior to handover of the constructed asset to the rail infrastructure asset manager and must</u> include:</p> <ul style="list-style-type: none"> a. measures to maintain or manage <u>any native impacts on</u> the beneficial use of groundwater caused affected by acidification <u>that is attributable to the project(s) so as to maintain existing beneficial use of groundwater</u> b. measures to monitor and manage <u>any negative impacts on</u> the beneficial uses of groundwater caused affected by contaminated groundwater <u>transfer or plume migration that is</u> attributable to the project(s) <u>so as to maintain existing beneficial use of groundwater</u> c. measures to maintain or manage <u>any negative</u> impacts on <u>the</u> beneficial uses <u>of groundwater caused by as a result of</u> changes to salinity in groundwater that is attribut<u>able ed</u> to the project(s) <u>so as to maintain existing beneficial use of groundwater</u> <u>d. identify the entity or entities responsible for implementation of any management and mitigation measures.</u> <p><u>The Groundwater Quality Mitigation Plan must be implemented if applicable trigger events or levels contained in the Groundwater Monitoring Plan (EPR reference GW3) occur.</u></p>		
<p>EMF1 Environmental Management System</p> <p>Implement an Environmental Management System during construction that is certified to AS/NZS ISO 14001: 2015 <i>Environmental management systems - Requirements with guidance for use</i>.</p>	Environmental management	
<p>EMF2 Environmental management plans</p> <p>Prepare and implement a Construction Environmental Management Plan(s) and other plans as required by the EPRs.</p> <p>The management plan(s) should be prepared in accordance with EPA Victoria Publication 480 <i>Environmental Guidelines for Major Construction Sites</i> (EPA Victoria 1996).</p> <p>The process for development and implementation of the management plan(s) must include consultation as specified in the Environmental Management Framework, including with the Kingston City Council, VicRoads, Melbourne Water, EPA Victoria, as relevant to their statutory responsibilities.</p> <p>The management plan(s) must be in place prior to commencement of construction excepting ancillary activities, preparatory and enabling works.</p>	Environmental management	

EPR		Discipline	Comment
EMF3	<p>Environmental incidents</p> <p>Prepare and implement a process for managing environmental incidents including:</p> <ol style="list-style-type: none"> classification and definition of environmental incidents notification requirements (including timing) to LXRA and relevant regulators incident investigation. 	Environmental management	
FF1	<p>Native vegetation and habitat</p> <p>Any 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>.</p>	Ecology	
FF2	<p>Flora and Fauna Guarantee Act 1988 permits</p> <p>A permit to take and destroy flora species protected under the <i>Flora and Fauna Guarantee Act 1988</i> is required. All permits must be obtained prior to the commencement of works which require approval under the Act.</p>	Ecology	
FF3	<p>Weeds and pathogens</p> <p>Develop and implement measures to avoid the spread, or introduction of weeds and pathogens during construction, including vehicle and equipment hygiene.</p>	Ecology	
FF4	<p>Fauna</p> <p>Minimise the removal of habitat for fauna.</p> <p>Where fauna habitat is identified for removal, engage a suitably qualified wildlife handler and recovery specialist to check for fauna occupancy and ensure compliance with the <i>Wildlife Act 1975</i>. All necessary authorisations must be obtained prior to commencement of works.</p>	Ecology	
FF5	<p>Protection of retained/adjacent vegetation and habitat</p> <p>Minimise or avoid unintended impacts on retained and/or adjacent vegetation and habitat by including measures in the Construction Environmental Management Plan(s) and other plans including tree protection zones, environmental no-go zones, fencing and signage, directional lighting, and best practice spill, sedimentation and water runoff management.</p>	Ecology	
FF6	<p>Landscaping for wildlife</p> <p>Incorporate native plant species into landscaping that provide wildlife habitat within level crossing removal project areas where appropriate.</p>	Ecology	

EPR	Discipline	Comment
<p>FF7</p> <p><u>Foreshore Native Vegetation Mitigation</u></p> <p><u>Prior to handover of the projects to the rail infrastructure asset manager, fund Kingston City Council to enhance foreshore native vegetation. Unless otherwise agreed between LXRA and Kingston City Council, the amount of the funding must be equivalent to the cost of acquiring native vegetation credits to offset:</u></p> <p><u>a. 0.788 general habitat units with a minimum strategic biodiversity value score of 0.202 and 0.506 general habitat units with a minimum strategic biodiversity value score of 0.295; and</u></p> <p><u>b. 6 Large old trees.</u></p> <p><u>Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (foreshore native vegetation)</u></p> <p><u>Prepare and fund the implementation of a Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (Foreshore Native Vegetation) in consultation with the land manager. The plan must:</u></p> <p><u>a. identify areas of coastal vegetation potentially impacted by a change to groundwater quality and/or levels as a result of the projects</u></p> <p><u>a. include a process to monitor groundwater to confirm any changes to groundwater quality and/or levels that could result in a loss of coastal native vegetation if required</u></p> <p><u>b. include a process for monitoring coastal native vegetation developed by a suitably qualified ecologist</u></p> <p><u>c. include criteria for determining whether a change in the extent or condition of coastal native vegetation is attributable to the projects</u></p> <p><u>d. include contingency measures to mitigate potential impacts attributable to the projects include the frequency and duration of monitoring if required.</u></p> <p><u>The plan would be implemented if trigger levels for changes to groundwater level and quality were identified by the groundwater monitoring program (see EPR reference GW3).</u></p>	<p>Ecology</p>	<p><u>In response to matters arising during the hearing and to improve drafting.</u></p>
<p>FF8</p> <p><u>Edithvale Wetland Mitigation</u></p> <p><u>Either:</u></p> <p><u>a. Agree with the land manager of the Edithvale Wetlands to provide funding to the land manager of the Edithvale Wetlands to implement monitoring and/or</u></p>	<p>Ecology</p>	<p><u>In response to matters arising during the hearing and to improve drafting.</u></p> <p><u>It may be appropriate to further amend this EPR, subject to the views of Melbourne Water.</u></p>

EPR	Discipline	Comment
<p><u>mitigation that is consistent with the Ramsar Site Management Plan.</u></p> <p><u>OR</u></p> <p><u>b. Prepare and fund the implementation of a Edithvale Wetland Mitigation Plan in consultation with the Commonwealth Department of Environment and Energy, the Victorian Department of Environment, Land, Water and Planning, and the land manager. If so, the Edithvale Wetland Mitigation Plan must:</u></p> <p><u>i. be prepared prior to handover of the Edithvale project to the rail infrastructure asset manager</u></p> <p><u>ii. include:</u></p> <p><u>A. a process to review data collected by Melbourne Water through existing and ongoing baseline monitoring of the Edithvale Wetlands (including groundwater levels, surface water levels and water quality within and around the Edithvale Wetland)</u></p> <p><u>B. any supplementary assessment or monitoring if required</u></p> <p><u>C. mitigation measures to be implemented in the event any applicable trigger events or levels under the Groundwater Monitoring Plan (EPR reference GW3) occur, such as:</u></p> <p><u>1. engineering measures to reinstate the Edithvale Wetlands to pre-impact conditions to the extent practicable</u></p> <p><u>2. ecological restoration measures developed by a suitably qualified ecologist that would be implemented to mitigate the effect of impacts attributable to the project(s)</u></p> <p><u>D. identify the entity or entities responsible for implementation of any management and mitigation measures</u></p> <p><u>iii. be implemented if applicable trigger events or levels contained in the Groundwater Monitoring Plan (EPR reference GW3) occur.</u></p> <p>Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (Edithvale Wetland)</p> <p>Prepare and fund the implementation of a Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (Edithvale Wetland) in consultation with the Commonwealth Department of Environment and Energy, Victorian Department of Environment, Land, Water and Planning, and the land manager.</p> <p>The plan must include:</p>		

EPR	Discipline	Comment
<p>a. monitoring of groundwater level and water quality at representative and strategic locations within and around the Edithvale Wetland if required</p> <p>b. the frequency and duration of monitoring if required</p> <p>c. monitoring of surface water quality at representative and strategic locations within the wetlands to differentiate temporal trends from long term changes to groundwater if required</p> <p>i. criteria (levels and quality) for groundwater and surface water in and around the Edithvale Wetland for determining whether a change in groundwater levels and/or quality is attributable to the projects response measures in the event groundwater and surface water change criteria are met, such as:</p> <p>ii. contingency measures developed by a suitably qualified ecologist that would be implemented to mitigate potential impacts attributable to the projects a process for ecological assessment developed by a suitably qualified ecologist to assess changes in aquatic fauna, birds and vegetation and consider whether these can be attributable to groundwater or surface water changes</p> <p>iii. criteria for determining whether a change in the extent or condition of the wetlands is attributable to the projects</p> <p>iv. include the frequency and duration of monitoring</p> <p>The plan would be implemented if trigger levels for changes to groundwater level and quality were identified by the groundwater monitoring program (see EPR reference GW3).</p>		
<p>GM1 Pre-construction condition survey</p> <p>Conduct a pre-construction condition survey(s) for <u>buildings, structures and other</u> assets predicted to be <u>damaged as a result of affected by vibration, subsidence and/or</u> ground movement <u>caused by the project(s)</u>.</p> <p>Develop and maintain a database of pre-construction and as-built condition information for each potentially affected <u>building, structure and other asset</u> identified as being in an area susceptible to damage (see EPR reference GM2), specifically including:</p> <p>a. identification of <u>buildings, structures/ and other</u> assets <u>predicted which may be susceptible to be damaged</u> resulting from <u>vibration, subsidence or ground movement caused by the resulting from project(s) works</u></p> <p>b. results of pre-construction condition surveys of <u>buildings, structures, pavements, significant utilities and heritage overlay sites and other assets predicted to be damaged as a result of vibration, subsidence or ground movement caused by the</u></p>	<p>Land stability</p>	<p><u>In response to matters arising during the hearing and to improve drafting.</u></p>

EPR	Discipline	Comment
<p><u>project(s)</u> to establish baseline conditions and potential vulnerabilities</p> <p>c. records of consultation with land owners in relation to the <u>pre-construction</u> condition surveys</p> <p>d. post-construction stage condition surveys conducted, where required, to ascertain if any damage has been caused <u>to any building, structure or other asset</u> as a result of <u>vibration, subsidence or ground movement caused by the project(s) works</u></p> <p>e. <u>proactively</u> share <u>with the land owner the results of pre-construction condition surveys, and post-construction condition surveys assessments</u> and records of consultation <u>with the property owner proactively</u></p> <p>f. ensure all stakeholder engagement activities are undertaken in accordance with the <u>delivery partner's</u> Community and Stakeholder Engagement Management Plan (see EPR reference SC1).</p>		
<p>GM2 Repairs to properties due to vibration, subsidence or ground movement</p> <p>For <u>properties buildings, structures and other</u> assets <u>damaged as a result of affected by</u> vibration, subsidence or ground movement <u>caused by the project(s)</u>, undertake required repair works or other actions as agreed with the property owner, <u>where impacts are attributable to the project.</u></p>	Land stability	<u>In response to matters arising during the hearing and to improve drafting.</u>
<p>GW1 Rail trench design</p> <p>The projects will be designed as rail trenches to meet applicable design standards and comply with the EPRs developed for the projects.</p> <p><u>The Edithvale project design must include:</u></p> <p><u>a. peer review (EPR reference GW4)</u></p> <p><u>b. a groundwater management system to appropriately minimise changes to groundwater levels caused by the Edithvale project</u></p> <p><u>c. appropriate engineering redundancy/contingency to ensure the proposed design is capable of achieving the groundwater performance outcomes (EPR reference GW2)</u></p> <p><u>and maintenance and inspection facilities to enable inspection and maintenance (EPR reference GW5).</u></p>	Groundwater	<p>In response to the recommendation of Tony Cauchi (expert report, sections 4.3.1 and 4.3.3).</p> <p><u>In response to matters arising during the hearing and to improve drafting.</u></p>
<p>GW2 Groundwater performance outcomes</p> <p>The tanked rail trenches at Edithvale and Bonbeach must be designed <u>and operate to</u></p>	Groundwater	<p>In response to the recommendation of Tony Cauchi (expert report, sections 4.3.1 and 4.3.3), <u>matters</u></p>

EPR	Discipline	Comment
<p>ensure that changes to groundwater levels as a result of the projects do not result in:</p> <ul style="list-style-type: none"> a. groundwater mounding that increases <u>waterlogging</u> at ground level b. groundwater drawdown that could causes <u>damage to buildings, structures and other assets as a result of</u> ground subsidence <u>or</u> and adverse impact to subsurface structures c. degradation to groundwater quality <u>as a result of acidification, changes to salinity, contaminant transfer or plume migration</u> that would preclude protected beneficial uses of groundwater (salinity, contaminants, coastal acid sulfate soils) d. changes to groundwater that would have significant <u>negative</u> impacts on groundwater dependent ecosystems <p>The performance of the installed rail trenches will be <u>inspected, maintained (EPR reference GW5) and</u> monitored <u>(EPR reference GW3)</u> to confirm <u>they are</u> it is not having any impacts on groundwater levels and quality beyond those set out above (EPR reference GW3). Further monitoring and mitigation measures would be implemented if a change to groundwater level or quality that is not in accordance with this <u>or other applicable EPRs are</u> is observed (EPR references FF7, FF8, CL5).</p>		<p><u>arising during the hearing and to improve drafting.</u></p>
<p>GW3 Groundwater Management and Monitoring Plan</p> <p>Prior to construction (excluding preparatory works), prepare and fund the implementation of a Groundwater Management and Monitoring Plan to the satisfaction of EPA Victoria and relevant water authorities to <u>monitor</u> manage predicted and potential impacts to groundwater <u>as a result of the project(s), following construction of the piled trench walls.</u></p> <p>The Groundwater Management and Monitoring Plan must be prepared prior to the construction of the piled <u>trench</u> walls and <u>once prepared it must be implemented. The Groundwater Monitoring Plan</u> must include:</p> <ul style="list-style-type: none"> <u>a. detailed groundwater monitoring parameters including timing and location of monitoring bores, including within the vicinity of the foreshore and within the vicinity of the Edithvale Wetlands</u> <u>a.b. parameters and timing for monitoring groundwater to identify any changes to contaminant transfer or plume migration caused by the Edithvale project</u> <u>b.c. duration of the groundwater monitoring program for at least 10 years with periodic review to consider the adequacy of the groundwater monitoring program and the need for future groundwater monitoring</u> 	<p>Groundwater</p>	<p><u>In response to matters arising during the hearing and to improve drafting.</u></p>

EPR	Discipline	Comment
<p>ed the entity or entities responsible for implementation and review of the monitoring program</p> <p>clear trigger <u>events or</u> levels for changes in groundwater level <u>or and</u>-quality that require one or more of the following actions: mitigation plans to be implemented</p> <ul style="list-style-type: none"> i. <u>implementation of the Groundwater Quality Mitigation Plan (EPR reference CL5)</u> ii. <u>implementation of the Edithvale Wetland Mitigation Plan (only if alternative b. of EPR reference FF8 applies)</u> iii. <u>operational maintenance of the Edithvale project to ensure that the groundwater management system continues to perform effectively (EPR reference GW5).</u> <p>The following plans for the monitoring and mitigation of impacts to specific environmental assets must be prepared prior to handover of the constructed asset to the rail infrastructure asset manager:</p> <ul style="list-style-type: none"> e. <u>Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (foreshore native vegetation) (EPR reference FF7)</u> f. <u>Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (Edithvale Wetland) (EPR reference FF8)</u> g. <u>Groundwater Quality Mitigation Plan (EPR reference CL5).</u> <p>The plans would be implemented if trigger levels for changes to groundwater level and quality were identified by the groundwater monitoring program.</p> <p>The Groundwater Management and Monitoring Plan must include a program of monitoring for at least 10 years.</p>		
<p>GW4 Independent peer review</p> <p>Prior to construction <u>(excluding preparatory works): of the trench, independent peer reviews by an appropriately qualified specialist must be undertaken of the following:</u></p> <ul style="list-style-type: none"> a. the proposed design of the Edithvale project <u>must be peer reviewed by an appropriately qualified specialist</u> to confirm that the proposed design <u>(EPR reference GW1)</u> is capable of achieving <u>the groundwater performance outcomes (EPR reference GW2)</u> b. the Groundwater Management and Monitoring Plan (EPR reference GW3) <u>must be peer reviewed by an appropriately qualified specialist. The appointment of the peer reviewer</u> 	Groundwater	<p>In response to the submission of the EPA and the recommendation of Mark Stuckey (expert report section 7.3).</p> <p><u>In response to matters arising during the hearing and to improve drafting.</u></p>

EPR	Discipline	Comment
<p><u>for this plan must be to the satisfaction of EPA Victoria.</u></p> <p><u>GW5 Operational maintenance</u> <u>The Edithvale project must be inspected and maintained to ensure that the groundwater management system continues to perform effectively.</u></p>	<p><u>Groundwater</u></p>	<p><u>In response to matters arising during the hearing.</u></p>
<p>HH1 Unidentified historical archaeological sites Minimise impacts on any unidentified historical archaeological sites and values discovered during construction through the development and implementation of an archaeological discovery protocol. The management protocol would be consistent with the <i>Heritage Act 2017</i> and developed in consultation with Heritage Victoria, and include a procedure for ceasing work if remains are discovered, notifying Heritage Victoria, obtaining consent and dealing with remains.</p>	<p>Historic heritage</p>	
<p>HH2 Heritage overlay sites Avoid adverse impacts to the Chelsea Clock Tower and Chelsea Railway Station during construction through the implementation of no-go zones through the environmental management plan(s) and other plans if required. Undertake a pre-condition survey in accordance with EPR reference GM1.</p>	<p>Historic heritage</p>	
<p>HH3 Heritage values Avoid or minimise, to the extent practicable, adverse visual impacts on adjoining heritage places, and maintain landscape character and significant heritage precinct values (where relevant) by applying the urban design framework and project specific Urban Design Guidelines during the design development process.</p>	<p>Historic heritage</p>	
<p>LP1 Land use (construction) The construction approach should:</p> <ol style="list-style-type: none"> avoid or minimise impacts to existing land uses on private and public land (including public open space) from temporary works and permanent structures as far as practicable reduce the disruption, to the extent practicable, to current users of public and council land resulting from temporary occupation include opportunities to implement landscaping enhancement. 	<p>Land Use</p>	
<p>LV1 Landscape and visual opportunities</p>	<p>LVIA</p>	

EPR		Discipline	Comment						
	Minimise negative landscape and visual impacts, and maximise opportunities for enhancement of public amenity and facilities to the extent practicable, through the application of the Urban Design Guidelines specific to each project in consultation with relevant stakeholders, including Kingston City Council.								
LV2	<p>Lighting</p> <p>Design lighting used during operation of permanent structures in accordance with relevant standards to minimise light spillage and protect the amenity of adjacent land uses to the extent practicable.</p>	LVIA							
LV3	<p>Light spillage</p> <p>Light spillage must be minimised during construction to protect the amenity of adjacent land uses to the extent practicable.</p> <p>The environmental management plan(s) and other plans must include requirements and methods to minimise light spillage, to the extent practicable, during construction to protect the amenity of adjacent and surrounding residential land uses, neighbourhoods, parks, community facilities including urban environments, and any known significant native fauna habitat, in consultation with relevant stakeholders.</p>	LVIA							
NV1	<p>Operational noise</p> <p>Design must ensure airborne noise generated by train movements at sensitive receptor locations are in accordance with the Passenger Rail Infrastructure Noise Policy 2013.</p> <table border="1" data-bbox="302 933 1176 1294"> <thead> <tr> <th>Time</th> <th>Type of receiver</th> <th>Investigation threshold</th> </tr> </thead> <tbody> <tr> <td>Day (6am – 10pm)</td> <td> <ul style="list-style-type: none"> Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks Noise-sensitive community buildings, including schools, kindergartens, libraries </td> <td> 65 dBL_{Aeq} and a change in 3 dB(A) or more or 85 dBL_{Amax} and a change in 3 dB(A) or more </td> </tr> </tbody> </table>	Time	Type of receiver	Investigation threshold	Day (6am – 10pm)	<ul style="list-style-type: none"> Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks Noise-sensitive community buildings, including schools, kindergartens, libraries 	65 dBL _{Aeq} and a change in 3 dB(A) or more or 85 dBL _{Amax} and a change in 3 dB(A) or more	Noise/Vibration	
Time	Type of receiver	Investigation threshold							
Day (6am – 10pm)	<ul style="list-style-type: none"> Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks Noise-sensitive community buildings, including schools, kindergartens, libraries 	65 dBL _{Aeq} and a change in 3 dB(A) or more or 85 dBL _{Amax} and a change in 3 dB(A) or more							

EPR				Discipline	Comment
	Night (10pm – 6am)	<ul style="list-style-type: none"> Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks 	60 dBL _{Aeq} and a change in 3 dB(A) or more or 85 dBL _{Amax} and a change in 3 dB(A) or more		
Design fixed assets to achieve compliance with State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1.					
NV2	<p>Construction noise</p> <p>Prior to construction (excluding preparatory works), prepare a Construction Noise and Vibration Management Plan for the projects in consultation with EPA Victoria and Kingston City Council.</p> <p>Manage construction noise and vibration in accordance with EPA Victoria Publication 1254 <i>Noise Control Guidelines, 2008</i> unless otherwise specified in the Construction Noise and Vibration Management Plan prepared for the projects.</p> <p>The Construction Noise and Vibration Management Plan must be prepared prior to commencement of construction (excluding preparatory works) and include:</p> <ol style="list-style-type: none"> the identification of sensitive receptors along the project alignment details of construction activities and an indicative schedule for construction works, including the identification of noise and/or vibration generating construction activities that have the potential to impact sensitive receptors measures to ensure effective monitoring of noise and vibration associated with construction how construction noise (including truck haulage) and vibration will be minimised, including: <ol style="list-style-type: none"> the scheduling of noisy works to typical construction hours where feasible (i.e. Monday to Friday 07:00 am to 6:00 pm, and Saturday 07:00 am to 1:00 pm) limiting night works outside of the main occupation periods the planning of site works to limit vehicle movements to certain locations and time periods 			Noise /Vibration	

EPR	Discipline	Comment
<ul style="list-style-type: none"> iv. the substitution of noisy plant or processes with quieter options (e.g. broadband reversing and movement alarms instead of conventional beepers) v. the provision of temporary noise barriers where practicable vi. monitoring of noise and/or vibration associated with construction vii. notifying residents who may be impacted by noise and/or vibration in advance of the works viii. a procedure for managing complaints. <p>The plan must outline airborne noise management levels and mitigation measures for evening and night time works. The management level is not a noise limit or target, but represents noise levels above which community reaction may be adverse and which should trigger mitigation actions to minimise the noise impact.</p> <p>Depending on noise levels, noise mitigation measures may include an offer of respite and relocation, in accordance with a Respite and Relocation Policy (see EPR reference SC2) and Community and Stakeholder Engagement Management Plan (see EPR reference SC1).</p>		
<p>NV3 Construction vibration</p> <p>Identify potential sensitive receptors (including heritage places) and potential impacts from vibration during the construction period. Where relevant, conduct condition surveys and monitoring of sensitive receptors.</p> <p><u>For human comfort, implement management actions if the Guideline Targets in Table 1 in BS6472-1:2008 for continuous, intermittent, or impulsive vibration are not achieved.</u></p> <p><u>For structural damage to buildings, implement management actions if the Guideline Targets in DIN4150-3:1999 for structural damage to buildings are not achieved.</u></p> <p>If impacts from vibration are anticipated, management and mitigation measures may include:</p> <ul style="list-style-type: none"> a. substituting high vibration plant or processes with lower vibration options b. utilising vibration monitoring to inform management and mitigation c. relocation of residents (EPR reference SC2) d. communication with potentially affected residents in accordance with the Community and Stakeholder Engagement Management Plan (EPR reference SC1). 	Noise /Vibration	In response to the recommendation of Kym Burgemeister (expert report, page 4).

EPR		Discipline	Comment
SC1	<p>Community and Stakeholder Engagement Management Plan</p> <p>Prior to construction (excluding preparatory works), prepare and implement a Community and Stakeholder Engagement Management Plan in consultation with Kingston City Council that:</p> <ol style="list-style-type: none"> a. identifies all project activities that potentially impact on community and business operations, and provides for well-coordinated communication and engagement processes b. consults with and addresses needs of vulnerable groups that would be impacted by the project such as the elderly, socio-economically disadvantaged groups and children c. consults with and addresses needs of users of community facilities impacted by the project such as schools, child care, aged care, and caravan parks d. sets out processes and measures to provide advanced notice to key stakeholders and other potentially affected stakeholders of construction activities (including any staged works, early works, main works, or out of hours works), significant milestones, changed traffic conditions, interruptions to utility services, changed access and parking conditions, periods of predicted high noise and vibration activities, including contact details for enquiries/complaints e. provides for any interested stakeholder to register their contact details to ensure they are automatically advised of planned construction activities, project progress, mitigation measures and intended reinstatement measures where applicable f. documents a complaints management process (including processes and measures for registering, managing and resolving complaints) consistent with Australian Standard AS/NZS 10002: 2014 <i>Guidelines for Complaint Management in Organisations</i>. 	Social	
SC2	<p>Respite and Relocation Policy</p> <p>Prior to construction (excluding preparatory works), prepare and implement a Respite and Relocation Policy to be offered to residents whose amenity is significantly affected by construction activities (e.g. out-of-hours works or sustained loss of amenity during the day for residences with special circumstances such as shift workers), or who are subject to loss of access.</p> <p>The Respite and Relocation Policy will only apply during the period in which residents are (or are likely to be) affected.</p>	Social	In response to the recommendation of Kym Burgemeister (expert report, page 4).

EPR	Discipline	Comment
<p>The Policy must contain:</p> <ul style="list-style-type: none"> a. the criteria that must be met for <u>voluntary and temporary</u> relocation to be offered to affected residents, <u>taking into account:</u> <ul style="list-style-type: none"> i. <u>the level of noise and vibration impact</u> ii. <u>the duration of the noise and vibration impact</u> iii. <u>loss of access</u> iv. <u>the type and duration of out-of-hours work covered by the policy</u> v. <u>time of day at which the work occurs</u> b. consideration of special circumstances such as language or cultural need, special needs related to health conditions or home businesses c. <u>engagement measures and mitigation measures, for example:</u> <ul style="list-style-type: none"> i. <u>respite offer (e.g. pre-purchased movie tickets)</u> ii. <u>earplugs (recognising that some people may prefer to stay at home during the relevant works)</u> iii. <u>alternative accommodation.</u> <p>the type and duration of out of hours work covered by the policy</p>		
<p>SC3</p> <p>Recreational facilities</p> <p>Where construction works directly impact on sports clubs or passive recreation users of directly impacted sporting and recreational facilities, work with affected sporting clubs and land managers to identify appropriate management measures, including provision of alternative facilities for the period of disruption.</p>	Social	
<p>SS1</p> <p>Sustainability</p> <p>Achieve LXRA's sustainability policy to:</p> <ul style="list-style-type: none"> a. demonstrate leadership in the commitment to a prosperous and integrated economic, social and environmentally sustainable future b. seek opportunities to enhance the value of natural systems c. pioneer innovation in sustainable design that seeks continuous improvement. 	Sustainability	
<p>SS2</p> <p>Climate change</p>	Sustainability	

EPR		Discipline	Comment
	Design projects in accordance with the most up-to-date climate change assumption guidance provided in the <i>Guidelines for Assessing the Impact of Climate Change on Water Supplies in Victoria</i> (DELWP, 2016) and the <i>Planning for Sea Level Rise Guidelines</i> (Melbourne Water, 2017) in order to manage climate change uncertainty in design, construction and operation.		
SW1	<p>Stormwater management - construction</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> through the Construction Environmental Management Plan(s) and other plans.</p> <p>Implement a water collection and treatment system to ensure that stormwater discharges comply with the State Environment Protection Policy (Waters of Victoria) 2004.</p>	Surface Water	
SW2	<p>Water quality - operation</p> <p>The design must include a water collection and treatment system to ensure that stormwater discharges comply with State Environment Protection Policy (Waters of Victoria) 2004 and do not impact beneficial uses of that waterbody.</p> <p>This would include adopting water sensitive urban design and integrated urban water management principles in the stormwater management design, in accordance with the LXRA's Urban Design Framework and the specific Urban Design Guidelines for the projects, and urban stormwater EPA Victoria CSIRO publication 480 <i>Urban Stormwater Best Practice Environmental Management Guidelines 1999-1996</i> in consultation with Melbourne Water and Kingston City Council as applicable.</p>	Surface Water	In response to the recommendation of Peter Meyers (expert report, section 4.3).
SW3	<p>Drainage network - construction</p> <p>Design surface water discharge <u>and quality</u> to have no adverse impact to the drainage network capacities in consultation with Melbourne Water and Kingston City Council as required.</p>	Surface Water	<u>In response to matters arising during the hearing and to improve drafting.</u>
SW4	<p>Drainage network – operation</p> <p>Design surface water discharge <u>and quality</u> to have no adverse impact to the drainage network capacities in consultation with Melbourne Water and Kingston City Council as required.</p>	Surface Water	<u>In response to matters arising during the hearing and to improve drafting.</u>
SW5	Flood protection - construction	Surface Water	

EPR		Discipline	Comment
	Maintain existing levels of flood protection associated with overland flow paths (considering flood levels, flows and velocities) during temporary construction works through compliance with Melbourne Water and Kingston City Council requirements for flooding and overland flows.		
SW6	<p>Flood protection - operation</p> <p>Design infrastructure to maintain existing levels of flood protection associated with overland flow paths (considering flood levels, flows and velocities) through compliance with Melbourne Water and Kingston City Council requirements for flooding and overland flows.</p>	Surface Water	
T1	<p>Transport Management Plan</p> <p>Prior to the commencement of construction (excluding preparatory works), develop and implement a Transport Management Plan(s) to minimise disruption (to the extent practicable) to affected local land uses, traffic, car parking, on-road public transport, pedestrian and bicycle movements and existing public facilities during all stages of construction. The plan(s) must be developed in consultation with the relevant road management authorities and be informed and supported by an appropriate level of transport analysis. The plan(s) must include:</p> <ol style="list-style-type: none"> a. a monitoring 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 b. consideration of cumulative impacts of other major projects operating concurrently in the local area c. identify the route options for construction vehicles (including haulage of spoil and other heavy materials to and from site) travelling to and from the project construction site, recognising sensitive receptors, and minimising the use of local streets where practicable d. be prepared in consultation with emergency services, develop suitable measures to ensure emergency service access is not inhibited as a result of project construction activities e. allow for the provision of alternative parking where practicable to replace public and commuter parking lost as a result of project construction activities and to prevent construction-related parking on local roads or use of public car parks f. allow for the provision of car parking or park and ride facilities for 	Traffic	

EPR	Discipline	Comment
<p>construction workers</p> <ul style="list-style-type: none"> g. provisions for the minimisation of impacts on existing connectivity for pedestrians, cyclists, public transport and road vehicles as a result of construction (including laydown areas), including the identification of alternative routes for pedestrians and cyclists and other measures to maintain connectivity and safety for pedestrians and cyclists h. 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 i. an approach for maximising the current road capacity on Nepean Highway and Edithvale Road during peak periods j. 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 k. reinstatement of access to open space, community facilities, commercial premises and dwellings if disrupted, as soon as practicable, and to an equivalent standard l. provision for safe access points to laydown areas and site compounds m. 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 reference SC1). <p>The plan may 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>		
<p>T2 Public Transport Disruption Management Plan</p> <p>Prior to commencement of works significantly affecting public transport services, develop and implement a plan for minimising disruption to public transport services (rail, bus) resulting from project construction activities. The plan must be developed in consultation with VicTrack, V/Line, Public Transport Victoria, the Department of Economic Development, Jobs, Transport and Resources (Transport) and Metro Trains Melbourne, as relevant.</p>	Traffic	
<p>T3 Pedestrian and cyclist connectivity</p> <p>Optimise the design in accordance with the principles and objectives of LXRA’s Urban</p>	Traffic	

EPR		Discipline	Comment
	Design Guidelines to maintain and enhance pedestrian and cyclists connectivity in consultation with relevant road authorities, Kingston City Council and Public Transport Victoria where appropriate.		
T4	Intersection design and performance Intersections must be designed and constructed to provide safe vehicle movements to the satisfaction of the responsible road management authority. Undertake an intersection analysis to ensure acceptable intersection performance.	Traffic	
T5	Car parking Where practicable, ensure no net loss in station car parking for rail users upon completion, and car parking must be replaced or reinstated at the earliest opportunity.	Traffic	
T6	Vehicle and pedestrian access Where vehicle and pedestrian access are altered during construction, ensure that vehicle and pedestrian access is replaced, in accordance with relevant road design standards.	Traffic	
T7	Debris on roads Minimise dirt and debris on the roads from construction activities by measures including: <ol style="list-style-type: none"> a. street sweeping b. covering all truck loads that have the potential to result in debris on public roads c. cleaning vehicles and tyres when leaving construction sites. 	Traffic	
T8	Emergency services Maintain vehicular and pedestrian access to hospital emergency departments at all times during construction and to other key health and medical facilities, where practicable.	Traffic	
UD1	Urban Design Guidelines Design projects in accordance with the LXRA Urban Design Framework and project specific Urban Design Guidelines. The Urban Design Guidelines must consider: <ol style="list-style-type: none"> a. identity 	Urban design	<u>In response to matters arising during the hearing and to improve drafting.</u>

EPR	Discipline	Comment
<ul style="list-style-type: none"> b. connectivity and wayfinding c. urban integration d. resilience and sustainability e. amenity f. vibrancy g. safety h. accessibility <p>Seek the advice of the LXRA Urban Design Advisory Panel (chaired by the Office of the Victorian Government Architect, and includes officers of Kingston City Council) during the preparation of detailed design to ensure an appropriate response to the LXRA Urban Design Framework.</p>		
<p>UD2</p> <p>Hoardings</p> <p>Minimise visual impacts during construction (where possible) with the installation of hoardings. Hoarding must be installed to LXRA’s hoarding requirements in consultation with the Kingston City Council.</p>	<p>Urban design</p>	