

Appendix A – Stakeholder engagement

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The landscape and visual impact assessment has been partly informed by the stakeholder engagement program. Stakeholders and the community were consulted to support the preparation of the project EES and to inform the development of the project and understanding of potential impacts.

Table 1 lists specific engagement activities that have occurred in relation to the landscape and visual impact assessment, with more general engagement activities occurring at all stages of the project.

Feedback relevant to the landscape and visual impact assessment is summarised in Table 2, along with where these topics are addressed in this report.

Table 1 Stakeholder engagement undertaken for the landscape and visual impact assessment

Activity	When	Matters discussed	Outcome
Urban Design Advisory Panel	Fortnightly from the 12 January 2018	Context, community and design matters	Facilitating outcomes focused on community benefit
Meeting with Whitehorse City Council	17 April 2018	Introduction to the landscape and visual impact assessment, planning	Additional studies and policies identified relevant to the landscape and visual impact assessment
Meeting with Manningham City Council	27 April 2018	Introduction to the landscape and visual impact assessment., planning	Additional studies and policies identified relevant to the landscape and visual impact assessment
Meeting with Banyule City Council	1 May 2018	Introduction to the landscape and visual impact assessment, planning	Additional studies and policies identified relevant to the landscape and visual impact assessment
Meeting with Yarra City Council	1 May 2018	Introduction to the landscape and visual impact assessment, planning	Additional studies and policies identified relevant to the landscape and visual impact assessment
Meeting with Boroondara City Council	22 May 2018	Introduction to the landscape and visual impact assessment, planning	Additional studies and policies identified relevant to the landscape

Activity	When	Matters discussed	Outcome
			and visual impact assessment
Meeting with Nillumbik Shire Council	31 May 2018	Introduction to the landscape and visual impact assessment, planning	Additional studies and policies identified relevant to the landscape and visual impact assessment
Melbourne Water	3 July 2018	Yarra Strategic Plan, Healthy Waterways Strategy, Cultural Values Study, North East Link Urban Design Strategy with respect to the landscape and visual impact assessment, Planning and Heritage.	Overview of where Melbourne Water is at in the process for the Yarra Strategic Plan and findings so far were distributed including key views identified during stakeholder consultation.

Table 2 Community feedback received for the landscape and visual impact assessment

Conserve from a sidente along the angle of	This report provides an assessment of the
 Concerns from residents along the project alignment about: Noise walls moving closer to homes Tunnel ventilation structures being dominant features New pedestrian bridges, viaducts and/or ramps changing views Loss of trees, planting and mounds that 	potential landscape and visual impacts due to project infrastructure including noise walls, elevated structures, tunnel ventilation structures, bridges and flood walls. There were 69 public domain and 12 private domain viewpoints assessed across the project corridor. Section 9 provides the findings of this assessment. The shading impacts of the project are considered from a landscape and visual impact assessment perspective in Section 9.5 of this
 screen and filter existing views of road infrastructure Loss of views of open space Loss of natural light 	report. Technical report E – Land use planning and Technical report I – Social provide an assessment of the shading impacts in relation to planning policy provisions regarding amenity.

Issues raised during community consultation	How it's been addressed
Concerns about the loss of mature trees across the project area and requests to keep or replace the existing tree scape. Locations frequently mentioned include Koonung Creek parklands and Simpson Barracks.	The construction of the project would require the removal of vegetation at locations across the project corridor. Section 9 identifies the loss of vegetation at each viewpoint and describes replanting/landscaping proposed. The photomontages and sections show the proposed replanting. This includes viewpoints at Koonung Creek Reserve, Koonung Creek wetlands, Koonung Creek trail and Koonung Creek Linear Park (VP39, VP40, VP49, VP50, VP51, VP55 and VP59). Viewpoint 15 considers views towards Simpson Barracks.
Concerns about visual impacts on users of sporting fields, community facilities, schools and parklands from raising Bulleen Road and building new elevated ramps between the Eastern Freeway and North East Link, new flood walls and tunnel ventilation structures.	The impacts on views from within sporting facilities and schools adjacent to Bulleen Road are considered in the report, with the change described. This includes viewpoints from Carey Bulleen Sports Complex, VP65 Trinity Marles Playing Fields and VP68 Freeway Public Golf Course.
Concerns about light spill from the road onto residential areas and request for this to be considered in impact assessments and project design.	Section 9.5 of this report discusses the potential light spill impacts. While there is currently no lighting design, this report does identify those locations that have potential to have medium to high light spill as a result of the project. EPR LV3 and LV4 are proposed to manage these impacts during construction and operation.
Concerns about visual impacts as a result of the project on Bolin Bolin Billabong.	The impacts on Bolin Bolin Billabong are discussed in the report (VP30). The impacts are impacts are expected to be negligible.
Concerns about views of work sites during construction and requests for more information about how visual impacts will be managed. This issue was frequently raised by residents on both sides of Greensborough Road at the Lower Plenty Road interchange.	The visual impacts during construction are discussed in Section 9.1.25, 9.2.24 and 9.3.25. There would be construction fencing along the boundaries of project work areas. Viewers located directly adjacent to the construction compounds would have their views to open space interrupted and some viewers from streets and properties located further away, but elevated above the project would have views into the construction compounds.
Concerns the architectural style of bridges and natural look and feel (i.e. textured concrete) of existing noise walls on the Eastern Freeway will change and requests for the project design to maintain the existing look and feel of the road.	The design of bridges and other elements of the project are yet to be determined. However, the project's Urban Design Strategy provides guidance to the contractor in terms of the performance requirements and benchmarks that must be achieved.
Requests for more information about how new planting will be maintained to a high-standard.	Section 4.7 discusses the arboriculture EPRs which refer to planting requirements.

Appendix B – Legislation, policy and guidelines

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1.1 Commonwealth legislation

1.1.1 Environmental Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 ('EPBC Act') protects those aspects of the environment that are of national environmental significance and heritage value. The protection of the environment includes the qualities and characteristics of locations, places, including heritage values of places.

1.2 State legislation

Victorian Government legislation includes two Acts relevant to North East Link.

Table 1 Key Victorian Government legislation of relevance to the landscape and visual assessment

Legislation	Relevance to this impact assessment
Planning and Environment Act 1987	The Planning and Environment Act establishes a framework for planning the use, development and protection of land in Victoria and includes a number of items relevant to landscape and visual assessment.
Yarra River Protection (Wilip-gin Birrarung murron) Act 2017	The Yarra River Protection (Wilip-gin Birrarung murron) Act provides an overarching policy and planning framework to coordinate and harmonise planning for the use, development and protection of the Yarra River, its parklands and other land in its vicinity.
	A purpose of the Act is to protect the Yarra River and the surrounding parcels of public land as one living and integrated natural entity. The Act also recognises the importance of the Yarra River, and its parklands and associated public places, to the economic prosperity, vitality and liveability of Melbourne and the Yarra Valley.
	The Act provides for the preparation of a Yarra Strategic Plan in accordance with Yarra Protection Principles to guide future use and development, and areas for protection within the Yarra corridor.
	An exemption from the provisions of the Act applies for projects declared under the <i>Major Transport Projects Facilitation Act 2009 (Vic)</i> (including North East Link). However, NELP has considered the long-term community vision within the Yarra Strategic Plan, and has had regard to the Yarra Protection Principles set out in the Act.

1.2.1 Planning Policy Framework

The primary objective of the Planning Policy Framework (PPF) is to provide an integrated context for spatial planning, land use and development for use by planning and responsible authorities.

The PPF outlines state-wide and regional strategic planning issues and is common in content across all Victorian planning schemes. In line with the transitional provisions of Planning Scheme Amendment VC148, policies of local significance are included in the Municipal Strategic Statement (MSS) and Local Planning Policies (LPP) (both of the Local Planning Policy Framework (LPPF), until such time of future introduction of the Municipal Planning Strategy (MPS).and integration of local content into the PPF.

Relevant policies to this assessment at state and regional level are outlined below and relevant local policy is outlined in the next Section 12.4.

The policies that relate to this assessment at state and regional level are summarised in Table 2.

Table 2 State and regional planning policies of relevance to the landscape and visual assessment

Policy	Relevance to this impact assessment
12 Environmental and Landscape Values	This policy states that planning should protect, restore and enhance sites and features of landscape value.
State policy: 12.03-1S River corridors, waterways, lakes and wetlands	North East Link aligns with the policy's state objectives for river corridors, waterways, lakes and wetlands (Clause 12.05-2S) in relation to the Yarra River to ensure development is sensitively designed and sited to maintain and enhance significant views and landscapes along river corridors.
12.05-2S Landscapes Regional policy:	The project aligns with the policy's state objectives for landscapes (Clause 12.03-1S) to protect and enhance significant landscapes and open spaces that contribute to character, identity and sustainable environments.
12.03-1R Yarra River protection	It states that planning for development should not detract from the natural qualities of significant landscape areas. Planning should improve landscape qualities, open space linkages and environmental performance in significant landscapes and open spaces, including green wedges, conservation areas and non-urban areas. This policy also recognises the natural landscape for its aesthetic value, as a fully functioning system and those important natural features should be protected and enhanced.
	North East Link aligns with the policy's regional objectives for Yarra River Protection (12.03-1R) to maintain and enhance the natural landscape character of the Yarra River corridor.
	Aligned strategies to promote a sense of place and landscape identity include the retention of a dominant and consistent tree canopy along the river corridor and within its broader landscape setting, and ensuring the appearance of development is subordinate to the local landscape setting, with any views of development being filtered through vegetation.
	Aligned strategies to maintain the river's secluded and natural environment include minimising the visual intrusion of development when viewed from major roads, bridge crossings, public open space, recreation trails and the river itself. Also aligned is ensuring the siting and design of buildings avoids conflicting with the local natural landscape and environmental character, and that building height is below the natural tree canopy and development set back a minimum of 30 metres from the river banks.
13 Environmental Risks and Amenity State policy: 13.05-1S Noise abatement 13.07-1S Land use compatibility	This policy states that planning should aim to avoid amenity conflicts. The project aligns with the policy's State objective on noise abatement (13.05-1S) to assist the control of noise effects on sensitive land uses. The aligned strategy ensures that development is not prejudiced and community amenity is not reduced by noise emissions, using a range of building design, urban design and land use separation techniques as appropriate to the land use functions and character of the area. North East Link aligns with the policy's state objective on land use compatibility (13.07-1S) to safeguard community amenity while facilitating appropriate commercial, industrial or other uses with potential off-site effects. Aligned strategies include appropriate development to the land use
	functions and character of the area by using a range of building design, urban design, operational and land use separation measures.

Policy 15 Built Environment and Heritage State policy: 15.01-1S Urban design 15.01-2S Building design 15.01-5S Neighbourhood character

Relevance to this impact assessment

This policy states that planning should ensure all land use and development appropriately responds to its surrounding landscape and character and that sites with significant aesthetic value should be protected. Planning should promote excellence in the built environment, create places that contribute positively to the local character and sense of place, and enhance the amenity of the area.

North East Link aligns with the policy's state objective on urban design (15.01-1S) to create urban environments that contribute to a sense of place.

Aligned strategies include development that responds to character, surrounding landscape, and support public realm amenity. Other aligned strategies include development landscaping to support amenity and attractiveness of the public realm, minimises detrimental impacts on amenity, and promote good urban design along and abutting transport corridors.

North East Link aligns with the policy's state objectives for building design (15.01-2S) to achieve building design outcomes that contribute positively to the local context and enhance the public realm.

Aligned strategies include ensuring that development is designed to protect and enhance valued landmarks, views and vistas. Site analysis should provide the basis for the consideration of height, scale and massing of new development, and that form, scale, and appearance of development should enhance the function and amenity of the public realm

North East Link aligns with the policy's state objectives for neighbourhood character (15.01-5S) to recognise, support and protect neighbourhood character and sense of place.

Aligned strategies include ensuring that development responds to neighbourhood character, reinforces a sense of place, and emphasises the underlying natural character and existing vegetation.

18 Transport

State policy: 18.01-1S Land use and transport planning 18.01-2S Transport system

This policy states that planning should ensure an integrated and sustainable transport system that provides access to social and economic opportunities, facilitates economic prosperity, contributes to environmental sustainability, coordinates reliable movements of people and goods, and is safe.

North East Link aligns with the policy's state objective for land use and transport planning (18.01-1S) to create a safe and sustainable transport system by integrating land use and transport.

Aligned strategies include the planning of urban development to minimise adverse impacts on existing transport networks and the amenity of surrounding areas.

North East Link aligns with the policy's state objective for transport systems (18.01-2S) to coordinate development of all transport modes to provide a comprehensive transport system.

Aligned strategies include locating and designing new transport routes and adjoining land uses to minimise disruption of residential communities and their amenity. To avoid detriment to and where possible enhance amenity desirable for that transport route in the short and long terms, planning and regulation of new uses or development of land near an existing or proposed transport route is required.

Aligned strategies include planning and regulating the design of transport routes and nearby areas to achieve visual standards appropriate to the importance of the route with particular reference to landscaping, the control of outdoor advertising and, where appropriate, the provision of buffer zones and resting places. Also by improving road networks where public transport is not viable, and where the road development is compatible with the Neighbourhood Principles and urban design objectives.

Policy	Relevance to this impact assessment
Yarra River Action Plan 2017	The Yarra River flows through the study area and North East Link aligns with the Yarra River Action Plan's objectives for the river. It outlines the Victorian Government's response to the Yarra Ministerial Advisory Committee (Yarra MCA) Discussion Paper, <i>Protecting the Yarra River (Birrarung)</i> (July 2016). The Yarra MCA made 30 recommendations, 28 of which were adopted in the Yarra River Action Plan and two in part. The below five objectives guide the 30 adopted actions: • A healthy river • The Great Yarra Parklands • A culturally diverse riverscape • Securing the Yarra Footprint • Modern governance.

1.3 Local policy

Areas of local policy relevant to the project are reviewed below.

1.3.1 Local planning policy framework

Local planning policies (LPP) are tools used to implement the objectives and strategies of the Municipal Strategic Statement (MSS). As outlined in Section 1.1, policies of local significance are provided in the MSS and local policy in line with the transitional provisions of Amendment VC148, until such time of future introduction of the Municipal Planning Strategy (MPS).and integration of local content into the PPF.

Table 3 also includes the planning provisions (zones and overlays) and supporting local provisions in the form of schedules of relevance to this assessment.

Table 3 Local planning policies relevant to the landscape and visual assessment

Legislation/policy	Relevance to this impact assessment
Banyule MSS and LPP	Under the Banyule planning scheme there is a strategy relating to the impact of built environment on landscape and views values. The project aligns with the objective to promote an enhanced visual appearance within industrial areas.
	North East Link aligns with the objectives of the residential neighbourhood character policy to ensure that developments on or near ridgelines retain existing trees, sit below the tree canopies, minimise excavation, and enable further tree planting to form a continuous canopy, so the scenic quality is maintained and enhanced.

Legislation/policy	Relevance to this impact assessment
Boroondara MSS and LPP	The importance of the Boroondara planning scheme to protect mature vegetation that contributes to landscape character, protect significant landscapes from development, particularly the Yarra River and environs, and to respect valued neighbourhood character is relevant to the project. North East Link aligns with the scheme's strategies for protection and enhancement of the landscape character within the Yarra River Corridor and its viewing points. Relevant strategies are to maintain canopy trees and native understory vegetation, as appropriate, and Maintain visually unobtrusive built form (including construction materials) within the landscape. The project aligns with the scheme's objective to retain its distinct neighbourhood character identity by maintaining the municipality's valued residential amenity including landscaped settings and leafy streets. North East Link aligns with the scheme's objective to ensure new development retains and enhances the key character attributes that contribute to a precinct's preferred character.
Manningham MSS and LPP	North East Link aligns with the Manningham planning scheme's policies to prevent the loss of scenic values of the Yarra River Corridor. A relevant objective is to protect and enhance landscape quality, view lines and vistas. North East Link aligns with the strategies to achieve this including the design and siting of buildings to minimise visual impact. This aligns with the Bulleen Gateway Policy as it refers to the visual elements of the Bulleen Industrial Precinct. The Vision Strategic Framework Plan also mentions Major Gateways that includes visual elements relevant to this project.
Nillumbik MSS and LPP	The Nillumbik planning scheme recognises the rural areas within the Shire provide vistas of agricultural land, treed bushland, hills and watercourses with minimal intrusion.
Whitehorse MSS and LPP	North East Link aligns with the Whitehorse planning scheme's strategic direction for protection of the environment. As part of this, the council seeks to protect visual amenity in the municipality. Trees are seen as an integral part of the key character of the municipality. In particular, the upper tree canopy and bushland appearance contributes to the overall landscape character of the municipality. Koonung Creek is a significant environmental, landscape and recreation location under the Planning Scheme. This creek forms part of an advanced open space network that is highly valued by the community. North East Link aligns with the Whitehorse planning scheme's objectives to 'To protect and enhance areas with special natural, environmental, cultural or historic significance for the future enjoyment of the community' and 'To develop main thoroughfares as attractive boulevards with improved advertising signage, landscaping and building design'. North East Link aligns with the following strategies to achieve these objectives through the landscape and visual impact assessment and Urban Design Strategy: Ensuring development is of a high quality design that is compatible with the character and appearance of the area Requiring the planting of upper canopy trees and other vegetation that enhances the character of the area Encouraging underground cabling and the co-location of siting facilities for service and communication infrastructure, including satellite dishes to minimise visual and amenity impacts. Reducing the visual impact of on-site car parking from the street by locating parking areas to the side or rear of buildings and the provision of appropriate landscape buffers to soften hard surfaced areas.

Legislation/policy	Relevance to this impact assessment
Yarra MSS and LPP	There are a number of urban design strategies under the Yarra planning scheme that align with the project North East Link in relation to views, landscape values.
	North East Link aligns with the scheme's strategies for protection and/or enhancement of the existing character of the Yarra's activity centres, urban fabric and landscaped beauty. Strategies to achieve this include maintaining the dominance of avenue trees over built form along boulevards to improve built form in transport corridors, and to improve the interface of this project with non-residential areas.
PCRZ - Public Conservation and Resource Zone	North East Link aligns with the purpose of the PCRZ within the municipalities of Banyule and Manningham to protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.
PPRZ - Public Park and Recreation Zones	The project aligns with the purpose of the PPRZ within the municipalities of Banyule, Boroondara, Manningham, Nillumbik, Whitehorse and Yarra to protect and conserve area of significance, where appropriate.
DDO1 - Design and Development Overlay (Boroondara)	The DDO1 is related to the Willsmere Design and Development Area. North East Link aligns with the design objectives of the this overlay for Boroondara to ensure that development of the land is compatible with the existing character and landscape of the area, the adjacent Willsmere Heritage Overlay area and the Yarra Bend Park.
DDO1 - Design and Development Overlay (Manningham)	The DDO1 is related to the Doncaster Road Strategy Area. North East Link aligns with the design objectives of the DDO1 for Manningham. These objectives are to ensure that topography, trees, shrubs and vegetation communities of the Hillcrest area, Donvale remain the prevailing elements of the existing neighbourhood character. To design dwellings that are subservient to the landscape character of the area, that development does not protrude above the prevailing height of the tree canopy, and to reinforce open streetscape character by having no, or low fencing allowing continuity of landscape and views to front gardens.

Legislation/policy	Relevance to this impact assessment
DDO1 – Design and Development Overlay (Yarra (Brirrung) River Corridor Protection)	North East Link aligns with the objectives of the Design and Development Overlays associated with the Yarra River corridor and the municipalities of Manningham and Boroondara. In relation to landscape projection, aligning strategies are to protect and enhance the natural landscape character of the Yarra River corridor
DDO2 - Design and Development Overlay (Manningham - Yarra (Birrarung) River Corridor Protection)	where the waterway, topography, adjacent public open space and continuous corridor of vegetation and canopy trees are the dominant features. To minimise the visual instruction of development when viewed from the Yarra River and adjacent public open space, bicycle and shared paths and bridge crossings. To ensure development on visible hillslopes, crests, skylines and ridgelines is subordinate to existing local vegetation and natural landscape character setting, and to
DDO31 - Design and Development Overlay (Boroondara)	ensure sufficient space is provided between buildings to maintain views to the Yarra River and allow for the planting and growth of vegetation, including large canopy trees.
	In relation to siting and design, aligning strategies are to avoid additional light spill and overshadowing from buildings on the banks and water of the Yarra River, its adjacent public open space, bicycle and shared paths. To ensure building elevations are presented at a variety of heights, avoid visual bulk and are stepped back from the frontage of the Yarra River and adjacent public open space. To ensure all external colours and finishes are non-reflective and do not create contrast with the natural landscape character, and to ensure public views of buildings are filtered through vegetation and trees.
	In relation to site coverage and permeability, aligning strategies are to avoid tennis courts, swimming pools and other structures within identified setbacks from the Yarra River to protect and enhance the natural landscape character setting and riparian zone. In addition to ensure all fencing within close proximity to the Yarra River is low in scale, visually permeable and does not create contrast with its natural landscape character setting.
DDO8 - Design and Development Overlay (Banyule)	This overlay relates to the Plenty River East Neighbourhood Character. North East Link aligns with the design objectives of the DDO8 for Banyule to ensure the heavily vegetated character of the area is respected by new development.
ESO1 – Environmental Significance Overlay (Banyule)	North East Link aligns with the objectives of the ESO1 for Banyule to protect areas along watercourses from development and loss of vegetation that may damage the streamside environment as a visual, conservation, ecological and recreation resource. In addition to ensure that development and management of land is compatible with the natural environmental character and landscaped qualities of the watercourse and surrounds. EES Technical report Q – further details this alignment.
ESO5 – Environmental Significance Overlay (Banyule)	North East Link aligns with the objectives of the Environmental Significance Overlay for Banyule to ensure the development, use and management of land is compatible with the existing character and landscape conservation of the area.
ESO2 – Environmental Significance Overlay (Manningham)	North East Link aligns with the objectives of the Environmental Significance Overlay for Manningham to encourage development that is in keeping with the bushland character of the area and is sympathetic to the existing built form. In addition to ensure development responds to the area's environmental and landscape characteristics, including topography and waterways.
ESO3 – Environmental Significance Overlay (Manningham)	North East Link aligns with the objectives of the Environmental Significance Overlay for Manningham to encourage development that is in keeping with the semi-rural character of the area and is sympathetic to the existing built form. In addition to ensure that development responds to the area's environmental and landscape characteristics, including topography and waterways.

Legislation/policy	Relevance to this impact assessment
ESO3 – Environmental Significance Overlay (Nillumbik)	North East Link aligns with the objectives of the Environmental Significance Overlay for Nillumbik to protect the river and its environs from visual intrusion caused by inappropriate siting and design of buildings. In addition, to protect areas along watercourse from development that may damage the streamside environment as a visual and recreational resource, and to protect and enhance vista when viewed from the watercourse, its banks or adjoining public open space.
ESO2 – Environmental Significance Overlay (Yarra)	North East Link aligns with the objectives of the Environmental Significance Overlay for Yarra in regard to its recreational, landscape character and heritage values. The aligning strategies for recreation use are to provide links, views and access from surrounding areas to the creek and open space. The aligning strategies for landscape character are to protect and enhance the natural and visual character of the waterway corridor, and to ensure the scenic qualities and visual character of the waterway corridor are not compromised by the inappropriate siting of buildings, the placement of fill or lack of screening vegetation. In addition, to restore those sections of the waterway corridor which have been modified to create artificial bed, banks and landforms to a more natural, visually attractive and ecologically diverse landscape. The aligning strategies for heritage are to protect natural landforms and geological features.
SLO1 – Significant Landscape Overlay (Banyule)	North East Link aligns with the purpose and objectives of the Significant Landscape Overlay for Banyule, Boroondara, Manningham and Yarra River to identify significant landscapes, conserve, and enhance their character.
SLO1 – Significant Landscape Overlay (Boroondara) SLO2 – Significant Landscape Overlay (Manningham)	North East Link aligns with objectives for landscape, environmental and cultural values to protect and enhance the natural landscape character of the Yarra River corridor where the river, its topography, adjacent public open space and a continuous corridor of vegetation and canopy trees are dominant features. In addition to retain exotic vegetation of heritage or neighbourhood character where it contributes to landscape significance. North East Link aligns with the objectives for access to public open
SLO1 – Significant Landscape Overlay (Yarra (Birrarung) River Corridor Environs)	space to encourage bicycle and shared paths that are well located, avoid unnecessary earthworks and vegetation removal and have good visibility to help increase safety for users. North East Link aligns with the objectives for siting, design and built form in regards to the Yarra River corridor. These are to avoid light spill and overshadowing from buildings, works on the banks and water of the river, adjacent public open space and along bicycle, and shared paths. To minimise the visual intrusion of buildings and works when viewed from the river and adjacent public open space, bicycle and shared paths and bridge crossings. To ensure buildings are sited and designed to reduce visual contrast with the natural landscape character setting of the river corridor. To ensure all buildings are subordinate to the existing vegetation with all views of buildings filtered through vegetation .In addition to ensure all fencing within close proximity to the river is low in scale, visually permeable and does not create contrast with its natural landscape character.
SLO5 – Significant Landscape Overlay (Manningham)	North East Link aligns with the objectives of the Significant Landscape Overlay to protect watercourses in Manningham. These includes ensuring the visual impact of development is minimised and areas along watercourse are protected from visual intrusion caused by the inappropriate siting or appearance of buildings and works. In addition to encouraging development in keeping with the character and appearance of the area, and to protect and enhance vistas from watercourses.

Legislation/policy	Relevance to this impact assessment
SLO9 – Significant Landscape Overlay (Whitehorse)	The Significant Landscape Overlay for Whitehorse identified the leafy and bushland character of Melbourne's eastern suburbs can be viewed from many high points. North East Link aligns with the objective to ensure this vegetated cover is maintained by encouraging the retention of established and mature trees and to provide planning of new canopy trees.
VPO1 – Vegetation Protection Overlay (Banyule)	North East Link aligns with the objective of the Vegetation Protection Overlay for Banyule to ensure the development, use and management of land is compatible with the existing character and landscape conservation of the area.
VPO5 – Vegetation Protection Overlay (Banyule)	The project aligns with the objectives of the Vegetation Protection Overlay for Banyule to retain and protect existing trees, and to promote further planting of new trees as a significant component of local identity and neighbourhood character. To protect vegetation of special significance, natural beauty, interest and importance. In addition to retain and protect existing trees, and to promote further planting of new trees to enhance streetscapes, ridgelines and backdrops in residential areas.
VPO1 – Vegetation Protection Overlay (Boroondara)	North East Link aligns with the objectives of the Vegetation Protection Overlay for Boroondara to recognise the landscape significance of the area and the Yarra Bend Park, and to conserve trees of historical, visual or botanical significance.
VPO – Vegetation Protection Overlay (Whitehorse)	North East Link aligns with the objective of the Vegetation Protection Overlay for Whitehorse to protect vegetation of special significance, natural beauty, interest and importance.

1.4 Local strategies

Table 4 Local strategies relevant to the landscape and visual assessment

	jies relevant to the landscape and visual assessment
Legislation/policy	Relevance to this impact assessment
Metropolitan Planning Strategy 2017-2050	The Victorian Government's Metropolitan Planning Strategy <i>Plan Melbourne 2017-2050</i> provides a vision for Melbourne through to 2050. It is a strategy to house, employ and move more people within the metropolitan area, and beyond. Already known as one of the world's most liveable cities, the vision for 2050 is that Melbourne will be a global city of opportunity and choice.
	This vision for Melbourne is underpinned by the nine guiding principles:
	A distinctive Melbourne
	A globally connected and competitive city
	A city of centres linked to regional Victoria
	Environmental resilience and sustainability
	Living locally – 20-minute neighbourhoods
	Social and economic participation
	Strong and healthy communities
	Infrastructure investment that supports balanced city growth
	Leadership and partnership
	These principles are supported by seven outcomes:
	 Melbourne is a productive city that attracts investment, supports innovation and creates jobs
	 Melbourne provides housing choice in locations close to jobs and services
	 Melbourne has an integrated transport system that connects people to jobs and services and goods markets
	Melbourne is a distinctive and liveable city with quality design and amenity
	 Melbourne is a city of inclusive, vibrant and healthy neighbourhoods
	Melbourne is a sustainable city
	Regional Victoria is productive, sustainable and supports jobs and economic growth.
	Plan Melbourne identifies motorways as contributing to productivity and liveability of cities the missing North East Link is highlighted as a critical gap in the existing motorway network. North East Link is identified as a potential transport infrastructure project.
	Plan Melbourne adopts a place-making approach to urban design with initiatives to support liveable communities and neighbourhoods. Plan Melbourne details a sense of place as having the following characteristics and qualities – visual, cultural, environmental and social. Key policies relevant to this assessment include:
	Integrating place-making practices into road-space management
	Strengthen Melbourne's network of boulevards
	Protect and enhance the metropolitan water's edge parklands
	Support a network of vibrant neighbourhood activity centres

Legislation/policy	Relevance to this impact assessment
Yarra Strategic Plan	Melbourne Water is in the process of preparing the Yarra Strategic Plan, which will seek to improve the management and protection of the Yarra River through the following themes:
	Environmental health of waterway and riparian lands
	Community use, access and amenity of the river and its parklands
	The landscape setting and interface of the river corridor with adjacent land uses
	Cultural and heritage values in the riverscape.
	The Yarra Strategic Plan will identify the following:
	The character of the river in each location, and the ways in which it is valued by the community
	 Map important views and vistas along the river and within the broader landscape
	Consider how and where development can occur and ensure the protection of the Yarra River's character and significant landscapes
	 Explore people's knowledge of the river's history and document places of significance and how they can be protected.
'Nhanbu narrun ba ngarqunin twarn Birrarung : Ancient Spirit and Lore of the Yarra' - Wurundjeri Input into the Yarra Strategic Plan	This document represents the Wurundjeri First Peoples input into the Yarra Strategic Plan. It includes identification of areas for protection within the Yarra River Land and the expectations and composition of Wurundjeri membership and participation on the Birrarung Council.
	The Wurundjeri are supportive of the broad objectives identified for the Yarra Strategic Plan, particularly the objective of returning the Yarra to a healthy river. However, key gaps have been identified especially around education and economic development.
	Key features of the document includes:
	 The Wurundjeri seek to contribute to the planning an decision- making process in all aspects of management of the Yarra catchment.
	 A key objective of the document is for a healthy, cleaner river. Targets are outlined to work towards this.
	 The practice of cultural and heritage mapping is emphasised for the ongoing identification and documentation of areas of cultural and historical significance to the Wurundjeri people, to assist in planning, management and development.
	 Priority projects from the Yarra Action Plan are identified within the document. Relevant agencies must engage with the Wurundjeri as the projects are being developed. Priority projects include the following:
	 Cultural practice, knowledge and cultural mapping
	o Abbotsford River Structure Plan
	 A Whole of Landscape Approach to the Cultural Management of Lands
	 Banyule – Yarra River - Bulleen Precinct Land Use Framework Plan
	o Bolin Billabong Complex
	o Partnership development.

1.5 State guidelines

Table 5 State guidelines of relevance to the landscape and visual assessment

Legislation/policy	Relevance to this impact assessment
Urban Design Charter for Victoria	North East Link aligns with the Urban Design Charter for Victoria and its objectives. It defines the importance of urban design that is concerned with the quality of cities, towns and smaller urban settlements in their entirety. The intention of the charter is to implement the following 12 public environment objectives to substantially improve the liveability of Victoria's urban settlements:
	Structure and connections – Organise places so their parts relate well to each other
	 Accessibility – Provide ease, safety and choice of access for all people
	Legibility – Help people to understand how places work and to find their way around
	 Animation – Stimulate activity and a sense of vitality in public places
	Fit and Function – Support the intended use of spaces while also allowing for their adaptability
	Complementary mixed uses – Integrate complementary activities to promote synergies between them
	Sense of place – Recognise and enhance the qualities that give places a valued identity
	Consistency and Variety – Balance order and diversity in the interests of appreciating both
	Continuity and change – Maintain a sense of place and time by embracing change yet respecting heritage values
	Safety – Design spaces that minimise risks of personal harm and support safe behaviour
	Inclusiveness and Interaction – Create places where all people are free to encounter each other as civic equal
	 Sensory Pleasure – Create spaces that engage the senses and delight the mind.
Landscapes of Cultural Heritage Significance: Assessment Guidelines 2015	These guidelines created by the Heritage Council of Victoria, are relevant to North East Link due to the aesthetic value of a landscape contributing to the overall cultural value of a landscape. The guidelines provide advice for 'designed' landscapes, 'organically evolved' landscapes and 'associative' landscapes. The assessment of cultural heritage significance differs from landscape character assessment as it focusses on the way people interact with the physical environment over time. The importance of views contribute to the overall cultural heritage value of a landscape.

1.6 Other guiding documents

A comprehensive review of local council strategies and guiding documents was undertaken based on a desktop review and in consultation with key stakeholders. Table 6 outlines the key documents relevant to landscape and visual assessment.

Table 6 Other guiding documents of relevance to the landscape and visual assessment

Legislation/policy	Relevance to this impact assessment
Banyule City Council	
Public Open Space Plan 2016-2031	The Banyule City Council <i>Public Open Space Plan</i> provides a broad strategic direction for the council's approach to open space planning and development.
	The vision, 'A green City that provides high quality, sustainable, accessible and well maintained public open space within five minutes walk of residents' is supported by six objectives:
	 Quantity Quality
	Access and Connectivity
	Equitable distribution
	Diversity
	Sustainability.
	The strategy investigates opportunities for improving shade coverage, creation of new open space, location of additional infrastructure such as play equipment and shared paths and building on the existing 'green' quality of the municipality.
Urban Forest Strategic Plan 2014	The Banyule City Council <i>Urban Forest Strategic Plan</i> outlines four key strategic objectives to set the framework for identifying Objectives: People – Our Healthy Community Planet – Our Healthy Landscapes Place – Our Urban Character Performance – Our Leadership. These objectives detail priorities such as enhancing existing
	neighbourhood character, and protecting and enhance existing remnant and significant landscapes.
Landscape Assessment for Significant ridgelines in Banyule 2012	In 2012, Banyule City Council commissioned a study of the municipalities ridgelines to identify those that significantly contribute to the landscape character of Banyule's various neighbourhoods. The ridgelines were defined as having 'continuous green, treed hilltops with homes that site below the canopy of trees.'
	The study outlined opportunities to better protect and improve the three significant ridgelines identified. Public views to and from the ridgeline contribute to the significant of each ridgelines. There are a number of identified significant ridgelines adjacent to the study area, which will need to be taken into consideration in the impact assessment.
Heidelberg Structure Plan 2010	In 2010, Banyule City Council prepared the <i>Heidelberg Structure Plan</i> in response to the Victorian Government's metropolitan planning strategy, <i>Melbourne 2030</i> (since updated with <i>Plan Melbourne 2017-20150</i>). The Structure Plan covers the council's objectives for environmental, social and economic aspects and notes that Heidelberg is known for its topography and views. The plan promotes 'Public Realm' supporting social connectivity and creating a strong sense of 'place'. Relevant objectives include: Creating attractive, safe and high amenity street, civic and open
	spaces that enhance and serve new levels of activity within a vibrant and interesting setting
	 Creating an attractive, safe and highly amenable railway station and surrounding streets that enhance and serve new levels of activity within a vibrant and interesting setting
	 Retaining views across and along the Burgundy Street Valley and considering views of the railway station.

Legislation/policy	Relevance to this impact assessment
	 The Structure Plan supports 'Built Form' where built form responds positively to the landscape, topography and character of the area. Relevant objectives will be achieved by: Ensuring new development responds to and respects the character of urban form in residential areas adjoining the precinct. The plan supports 'Identity' to conserve identity for local people and visitors that incorporates Heidelberg's distinctive features. Relevant objectives will be achieved by: Securing the conservation of the area's heritage buildings and landscape and ensuring that new development is respectful and complements the character of the area.
Neighbourhood Character Strategy 2012	Banyule City Council prepared the <i>Neighbourhood Character Strategy</i> in 2012 to provide the council with a strategic policy framework to support housing change in residential areas. Key objectives include:
	Natural environment
	To protect and enhance the natural values of waterways and wetlands.
	To protect and improve regional and local significant ridgelines.
	Built environment
	 To ensure that development respects and contributes to the desired future character of residential neighbourhoods and the identity of Activity Centres, in a manner that supports varying degrees of housing change.
	Transport and infrastructure
	 To reduce of the detrimental effects of transport on amenity. To reduce of the detrimental effects of transport on the natural environment of Banyule.
	Key issues identified include:
	Land use
	 Achieving a balance between the objectives of protecting residential amenity and providing for desired future neighbourhood character outcomes, on the one hand, and providing for urban consolidation and satisfying housing demand, on the other hand.
	Natural environment
	 Banyule has regionally and locally significant ridgelines. The green, tree dominated landscape character of these ridgelines needs to be protected and improved
	 Banyule's significant ridgelines, outside the core of Activity Areas, are under threat from buildings that dominate their landscape and tree removal that diminishes the tree dominated appearance of these urbanised landscapes.
	Built environment
	 Significant trees, substantial trees and other vegetation make a contribution to the desired future character of residential neighbourhoods, identity of Activity Centres, landscape character, streetscapes, habitat links and biodiversity.
	 The significant contribution that vegetation makes to the environmental quality and character of neighbourhoods is often overlooked or misunderstood.
	 Poorly designed development can erode the desired future neighbourhood character and a community's sense of place.
	The study identifies the different neighbourhood character area types present within Banyule. Within the study area the following three neighbourhood character areas are present: Garden Suburban, Garden Court and Bush Garden.

Legislation/policy	Relevance to this impact assessment
	 Relevant objectives are identified below: To ensure that developments on or near ridgelines retain existing trees, sit below the tree canopies, minimise excavation, and enable further tree planting to form a continuous canopy, so the scenic quality is maintained and enhanced. To maintain and enhance the native vegetation dominated vistas, streetscapes and backdrops, retain remnant indigenous vegetation, and encourage the replanting of indigenous plants.
Picture Watsonia	Banyule City Council's <i>Picture Watsonia</i> provides a vision for Watsonia's main shopping street, the railway station and adjoining carpark. The vision is supported by objectives that build on the existing elements the community values Watsonia for, such as the local character. The vision aims to create a future for Watsonia that enhances the existing leafy character, builds on existing and increase public spaces, improves accessibility and connectedness within the precinct.
DRAFT Strategy for Substantial Trees in Banyule's Garden Court and Garden Suburban Neighbourhoods 2013	The strategy provides guidance for the protection, retention and planting of large trees in various Garden Court and Garden Suburban neighbourhoods across Banyule. Relevant to neighbourhood character and local identity, advice is provided on the placement of trees.
Greensborough Activity Centre – Urban Landscape Design Guidelines 2015	These design guidelines provide detailed requirements for built form response, topography and managing visual impact for buildings outside the Activity Centre boundary. The aim of the guidelines is to respond to extraordinary natural attributes and visual linkages. Of relevance, Precinct 6 - Flintoff Street has the largest impact on views therefore the guidelines are: To reduce building bulk To design taking into account view lines To minimise excessively tall or bulky buildings that dominate views To encourage views between buildings To incorporate significant remnant trees into streetscape and building design To minimise blank walls, articulating facades and using a combination of materials and colours. Setback and landscaping is also identified as important in protecting the distinct landscape characters. Relevant guidelines include the retention of significant trees, favouring natives.
City of Boroondara	
Boroondara Open Space Plan Strategy 2013	The City of Boroondara <i>Open Space Strategy</i> provides the strategic direction for the future planning, provision, design and management of open space in Boroondara through to 2026. The strategy's vision is for 'A vibrant, liveable city which fosters the cultural, environmental, economic and personal wellbeing of our community'. The municipality's major challenges of providing for diverse and changing recreational needs with population and climate change aims to do this through the following principles: Accessible Adaptable Connected Cultural Diverse Equitable Recreational

Legislation/policy Relevance to this impact assessment Social Sustainable. Visual and passive amenity values have been used Municipal recommendations opportunities for improving shade coverage, creation of new open space, location of additional infrastructure such as play equipment and shared paths and building on the existing 'green' quality of the municipality. The City of Boroondara Urban Biodiversity Strategy vision is to **Urban Biodiversity** '....provide a dynamic example of integrating biodiversity and habitat Strategy 2013-2023 into an intense urban environment. Boroondara's residents value the City's natural assets and appreciate opportunities to explore and experience nature in the City.' The guiding principle related to landscape and visual amenity is to design projects to improve neighbourhood amenity through delivering multiple benefits rather than single outcomes for projects. City of Yarra Open Space Strategy 2006 The City of Yarra is currently in the process of drafting a new open space strategy for the next 10-15 years. For the purpose of this assessment, the 2006 Open Space Strategy has been reviewed. The role of the 2006 strategy is to guide the future provision, planning, design and management of public land reserved for recreation and nature conservation purposes. Vision: Yarra's waterways, inner city location, diverse social mix and heritage character all contribute to a unique landscape. Council seeks to respond to this landscape through the establishment of a quality open space system that meets the recreational and environmental needs of the local community and enhances cultural, social and ecological values. This will be delivered in a sustainable management framework so that the long-term economic, cultural and environmental viability of Yarra's open space network is protected and enhanced for current and future generations. The vision is supported by the following principles: Accessible Adaptable Diverse Environmentally sustainable Equitable Valuing cultural heritage Inclusive Advocate Demonstrate. Key strategy outcomes: Retain the green open space values in reserves, using guidelines to assess proposed built infrastructure and buildings in open space, requiring they demonstrate how they contribute to the recreational use and nature conservation values of the open space prior to their approval. Ensure development adjoining open space demonstrates that it is compatible with the use of that open space.

The *Open Space* Strategy explores how 'the term 'open space' means different things to different people in Yarra. Open space can be

perceived as parkland, playing fields, nature reserves, gardens, habitat, courtyards, forecourts, plazas, streets, footpaths, kerbside cafes, private gardens, trees and uninterrupted views of the horizon.

Key criteria for the provision of new public open space include:

Legislation/policy	Relevance to this impact assessment
	 Highly accessible, visible and able to adequately provide for regional visitors from metropolitan areas. If access is to be provided primarily by car, adequate provision is required for car parking for regional visitors.
	Good visual access of the reserves outside perimeter accessible and free from buildings.
	Key recommendations for linking of open spaces:
	 Improvements for crossing major roads which may include pedestrian refuges, outstands to reduce distance of road surface to cross and improve visibility of pedestrians for drivers and signals.
	Key recommendations for environmental links:
	 New vegetation to be predominantly indigenous, and any new planting that is not indigenous due to consistency with heritage values, to be species that are not known weeds in the waterway corridors;
	 Increase the presence of over-storey trees, and utilise indigenous species where appropriate.
	Key recommendations for upgrading of existing open space include:
	Clear line of sight into the reserve to allow safe access
	Retain clear line of sight into the reserve at all entry points.
	Key recommendations around major built infrastructure in open space include:
	 Location should not block prominent public views to the reserve and not create hidden or unusable areas around them
	• Entrances orientated to the park to ensure adequate sight lines are maintained around entries
	Complement the character of the park
	 Review line of sight on paths to ensure clear visibility is retained on paths and views are not obscured by overhanging vegetation.
	Key recommendations for the interface between development and open space:
	 Demonstrate the scale, height, building mass, and building design will not overwhelm and significantly impact on the existing open space reserve including existing use and public enjoyment of the reserve. Potential issues to consider will include extent of overshadowing, effect on weather patterns including wind and overlooking from the proposed development.
	 There is no significant loss of views into the reserve from public access points.
	The study identifies Coate Park as having good views over the Yarra River valley.
Urban Design Strategy 2011	The City of Yarra's (2011) <i>Urban Design Strategy</i> sets out a design vision for the municipality, which includes some areas located within the project. The strategy aims to achieve a coherent and appealing urban environment that encourages continuity, growth and change. For the public domain and public spaces, its design principles include an emphasis on the quality of the municipality as a whole, and on design that reflects the municipality's inner city as well as its neighbourhood characters. Consistency in the design of public domain works is also important, align with sustainability, enhancing walkability and social interaction, and incorporating art into public domain improvements.
Manningham City Council	I
Draft Koonung Park Management Plan 2016	In 2016, Manningham City Council prepared the <i>Draft Koonung Park Management Plan</i> for the following purpose: To document and protect the key values of Koonung Park by
	providing a framework for future planning

Legislation/policy	Relevance to this impact assessment
	 To establish short, medium and long term, objectives and actions for the future development of the park
	To develop a masterplan for improvements over a 10-year period
	 To provide a guide for the management of sport and recreation facilities in the park.
	Key objectives are to enhance the landscape and protect the environment.
Open Space Strategy 2014	The Manningham City Council <i>Open Space Strategy</i> provides a 10-year plan that sets priorities and guidelines for the protection, development and use of public open space within the municipality. Vision:
	Our vision is for an accessible and well connected open space network that supports a healthy community and healthy environment. Key objectives include:
	Improve links within the open space network to facilitate access to destinations and enhance the natural environment
	Protect/enhance the natural landscape within our open spaces
	 Ensure planning for future built infrastructure considers the values of the open space network.
Streetscape Character Study 2009	In 2009, Manningham City Council undertook a <i>Streetscape Character Study</i> to provide an integrated streetscape character strategy across the municipality. The study established a typology of streetscape character areas, with individual precincts identified. The study determined the typologies through analysing the following significant elements that contributed to streetscape character:
	Residential grain (lot size and density)
	Subdivision patter (and period of development)
	Building style
	Road hierarchy and construction Tage rearrants (ridgelings and valleus)
	Topography (ridgelines and valleys)Orientation (north/south facing, vistas)
	Tree cover
	Landscape features (rivers, creeks)
	Present zoning.
	Traditional Grid Precincts - Older precincts that follow the traditional grid layout and do not take topography into account with regard to the street layout.
	 Precinct 9: Sheahans precinct character is defined by 'attractive vistas over the adjoining Yarra Valley' and identifies the opportunity to create a stronger theme for the precinct that responds to the adjacent Yarra Valley environment.
	 Precinct 13: Thompson South, Precinct: 18 Whittens and Precinct 20: Tunstall precinct characters are defined as having 'expansive views over Koonung Creek'.
	The study identifies the future Eastern Freeway as likely to have considerable impact on the precincts character.
	Modern curvilinear precincts - These precincts are defined as having a curvilinear road pattern that follow the topography of the area.
	 Precinct 22: Bolin Bolin precinct character is identified as orientated towards Yarra Valley floodplain and having strong indigenous/native planting themes.
Manningham Residential Character Guidelines 2005	Manningham City Council prepared the <i>Manningham Residential Character Guidelines</i> in response to Melbourne 2030. The guideline set out to protect the features and characteristics unique to Manningham. Some key strategies specific to landscape character include, the

Legislation/policy	Relevance to this impact assessment
Logislation/policy	reinforcement of open streetscape character by having no, or low fencing to, allow views to front gardens. In addition to sites that front Doncaster Road or Manningham Road, canopy trees proposed to be planted in the setback to be consistent with the existing streets trees to assist in creating a boulevard character.
City of Whitehorse	
Neighbourhood Character Study Preferred Character Statements and Guidelines	In 2003, the City of Whitehorse prepared <i>Neighbourhood Character Study</i> for the municipality to describe the valued characteristics of each residential neighbourhood and a means for protecting the valued characteristics through the Whitehorse Planning Scheme. Whitehorse City Council reviewed and updated the <i>Neighbourhood Character Study</i> in 2014. The <i>Neighbourhood Character Study</i> identifies two character areas
	relevant to the study area, Garden Suburban and Bush Suburban.
Whitehorse Open Space Strategy	In 2007 the City of Whitehorse prepared an <i>Open Space Strategy</i> which outlines a direction for the future provision, planning, design and management of public open space. The strategy notes the undulating topography present "provides visual interest and diversity in the open space reserves with some reserves located on elevated hilltops offering good views towards the City and the Dandenongs, for example Simpson Park." A key recommendation and guideline outlined in the strategy is that
	adjacent developments should minimise impact on views into the reserve from public access points.
Elgar Park Master Plan	 Land use and character section identify character areas within Elgar Park. This section highlights the bushland along Koonung Creek and the dense vegetation between Elgar Park and Easter Freeway as key features within Elgar Park. Elgar Road just south of the Eastern Freeway is identified as an important gateway into the Whitehorse municipality. The gateway is defined by an entry element containing the Council logo (a horse head sign) and supported by roadside canopy tree planting, including trees along the embankment between Elgar Road and Elgar Park. The presentation of the park from this gateway is considered important in contributing to the entry experience of motorists into the City of Whitehorse. The intersection of Elgar Road and Belmore Road is another important interface for Elgar Park as it presents itself to motorists at this busy intersection. While containing large canopy trees, the presentation here is generally poor, due to the back of house presentation of the miniature railway and gravel surface car park. The bushland vegetation along the northern and western interfaces for the back provides an attractive backdrop for the park.
Municipal Wide Tree Study 2016	This study looks at the tools (zones, overlays, provisions) in place to protect and enhance private trees in the municipality. The study highlights the importance of the SLO in recognising areas for special landscape character and protecting large areas of trees which influence the character of the landscape.
Box Hill Structure Plan 2007	This plan identifies strategic opportunities to improve Box Hill's image and sense of place through urban design by redeveloping landmark sites, enhancing laneways, open space, heritage and cultural features, and creating better pedestrian links. Related strategies and actions include improved visual access to parks from nearby streets and sites, greater support for park uses through complementary activities on neighbouring sites, and increased passive surveillance to support personal safety in public spaces. Other actions include encouraging

Legislation/policy	Relevance to this impact assessment
	development to contribute to Box Hill's sense of place, where the visual impact of new buildings and uses should fit in with the existing sense of place and landscape character. Relevant recommended development controls include built form which protects the different land use areas and their character such as residential amenity, traditional town centre and commercial/mixed-use.
Nunawading MegaMile and Mitcham Structure Plan 2008 (east Plan)	This plan focuses on the Nunawading Activity Centre, Mitcham Neighbourhood Centre and the areas known as the 'MegaMile east'. A relevant strategic area is open space and public realm to reinforce the habitat/heritage character of the precinct, improve open space and amenity and locate visual markers for the village centres and MegaMile. There is a focus on complementing the existing character of the built form to maintain quality and character. As well as encouraging a vibrant street life and outdoor activity within Mitcham and Nunawading to maintain high public realm and clear view lines. These can be implemented through enhancing landscaping, upgrading pedestrian realm, and developing open space and public networks.
Megamile (west Plan) and Blackburn Activity Centres for Urban Design Framework 2010	This framework focuses on the Blackburn Activity Centre and the major activity centre known as the 'MegaMile west'. A relevant theme for buildings includes the sensitive design of new development to complement or enhance existing character of area. These can be implemented through the built form interacting with the public realm in a positive way for street level users and providing strong visual connection between buildings and people on the street. Another relevant theme for spaces includes strengthening the local sense of place, character and identity of the Activity Centres. This can be implemented through: • A coordinated landscape and continuation of existing landscape theme • Continued protection of significant streetscapes and vegetation that display the area's natural landscape setting • Encouraging the undergrounding of powerlines. Another relevant objective is to maintain the valued 'village' character and localised sense of place of the Blackburn Station Village. To do this, the framework recommends new buildings should fit in with existing form and scale and there, heritage and vegetation should be conserved and façade improvements be prioritised.
Neighbourhood Activity Centre Urban Design Guidelines 2014	 These guidelines are to be applied to all neighbourhood activity centres throughout Whitehorse, unless included within a structure plan or urban design framework. Related guidance includes: Minimising the visual impact of new development when viewed from surrounding residential dwelling and streets Landscaping to soften visual impact of car parking Appropriately placed signage to reduce visual clutter. Enhancing visual and physical connection sot landmarks, open space/parklands and public transport.
Whitehorse Urban Biodiversity Strategy	The City of Whitehorse prepared an Urban Biodiversity Strategy for council-managed open space, streetscapes and community facilities. It outlines a direction for the biodiversity conservation and management actions of these areas. The strategy notes the suburban Whitehorse landscape can be viewed as two generally distinct suburban areas; the more formal exotic landscape character in the west and the bushland and native character in the east. In relation to park design, the strategy suggests that guidelines are to be developed that apply to the range of open space uses and objectives, to facilitate management that is proactive and incorporates the various biodiversity, maintenance and/or recreational requirements.

Legislation/policy	Relevance to this impact assessment			
Melbourne Water				
Draft Healthy Waterways Strategy 2018	The Draft Healthy Waterways Strategy aims to provide strategic direction for the management of all waterways within Port Phillip and the Westernport region for the next 50 years.			
	The broad vision of the draft strategy is for 'healthy and valued waterways that are integrated with the broader landscape, enhancing life and liveability'.			
	The draft strategy seeks to:			
	 Express the broad regional vision for the waterways, supported by visions and goals within the region's five main waterway catchments 			
	 Make waterway management a part of decision-making for land and nature conservation, social and economic development and to benefit the bays 			
	 Publish the community's agreed 10 to 50-year targets for waterway values and conditions 			
	Describe how we will make decisions, act, evaluate and learn			
	 Support Traditional Owners to recognise, protect and promote the Aboriginal values underpinning the approach to managing waterways, for generations to come 			
	 Prioritise improvements to waterway recreation, community connection and amenity, to support Melbourne's status as an international city 			
	 Respond to the challenges that climate change and urbanisation pressures place on urban waterways 			
	 Identify priority areas for integrated water management strategies such as stormwater harvesting and infiltration 			
	Identify performance objectives for environmental management			
	 Outline water quality targets to support the health of Port Phillip Bay and the Westernport Region 			
	 Increase community participation in waterways management Recognise the economic value of waterways to complement the 			
	established environmental and social values			
	Recognise the importance of working with other stakeholders to realise the draft strategy			
	Promote an adaptive management approach.			
Healthy Waterways Strategy 2013	The vision of the <i>Healthy Waterways Strategy</i> (Melbourne Water, 2013) is that: <i>Healthy and valued waterways are integrated with the broader landscape and enhance life and liveability. They:</i>			
	 Connect diverse and thriving communities of native plants and animals. 			
	 Provide amenity to urban and rural areas and engage communities with their environment. 			
	 Are managed sustainable to balance environmental, economic and social values. 			
	The strategy emphasis a collaborative and integrated approach to stormwater management. Melbourne Water aims to establish and maintain streamside zone along all waterways to protect or improve native vegetation, river health and biodiversity, and provide space for recreational infrastructure and activities.			
	Melbourne Water is currently in the process of developing the <i>Healthy Waterways Strategy 2018-2028</i> . This strategy will have a 'whole of catchment' view of the regions waterways, of which the Yarra River is part.			

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Relevance to this impact assessment

Middle Yarra Concept Plan Burke Road to Watsons Creek 1991

This concept plan covers the Middle Yarra River. A relevant objective of the plan is to protect and enhance the appearance and landscapes of the valley and views from important recreation areas. There is a strong acknowledgement in the concept plan regarding the impact of transport infrastructure, residential, industrial and overhead power lines on the landscape quality and visual amenity of the area. The plan recognises the visual landscape is formed by a number of viewing points along the riverside parklands, adjacent hillsides, along bicycle and walking tracks, and from roads crossing the valley.

Viewing zones have been characterised into three viewsheds visible from public open space and proposed open spaces along the river. These viewing zones informed the basis for the proposed overlay controls. Advice to protect the visual landscape includes:

- Establishing screen planting along park boundaries with indigenous plants
- Retaining the landscape character units. Minimising negative features and maximising positive characteristics such as 'sense of place'
- Conservation and reconstruction of historical landscapes, consistent with protection and enhancement of natural landscapes.

To protect the enormous public asset of the Yarra Valley, this plan also proposes planning controls over land within the viewshed area that affects the Middle Yarra Valley, visually and in other ways.

The Yarra Valley Visual Resources Study should be considered: the importance of views into the valley parkland from freeways and main roads; and the need for visual enhancement of a dominant road or freeway when viewed from the parkland. One solution might be to provide noise attenuation and visual screening measures that allow intermittent views or glimpses into the parkland.

The surrounding areas that affect the Middle Yarra Valley have been defined by the Middle Yarra Valley Visual Resource Study, which delineates the viewsheds visible from all public open space and proposed public open spaces along the river.

These were categorised into three viewing zones:

- Viewing Zone A. The foreground and near middle ground areas where natural landscape features and landscape attractions have an immediate visual presence and can exert a significant degree of visual influence on the experience of visitors.
- Viewing Zone B. The middle ground and far middle ground areas where natural landscape features have an intermediate visual presence and a more moderate degree of visual influence on the Yarra Valley landscape.
- Viewing Zone C. The background areas where landscape features and alterations are well removed in terms of their visual effects.
 Only major forms and basic colour hues are visible.

These viewing zones have formed the basis of the areas proposed for overlay controls by amendments to the planning scheme, which are set out in Part D of the concept plan.

Landscaping plans for open space within the Yarra Valley should retain and enhance views tram the Yarra Scenic Drive and other roads.

As part of the preparation of this concept plan a Visual Resource Study was undertaken by Scenic Spectrums Pty Ltd. From this study the corridor was broken into four landscape character units:

- Koonung Creek Unit
- Stony-Mullum Mullum Creek Unit
- Jumping-Watsons Creek Unit
- Plenty River Unit.

Legislation/policy

Relevance to this impact assessment

For the purpose of this report the Koonung Creek Unit is relevant to the study area. Site recommendations to the Koonung Creek Unit are listed below:

- Protect and enhance views of river rapids
- Ensure that existing indigenous vegetation and bushland character is retained

Overlay controls are used to protect the visual and natural qualities of the Yarra and its environs and make appropriate floodway and drainage provisions. These kinds of con-trols already apply downstream Of Burke Road and along tile lower Maribyrnong River.

The purpose of the Yarra Viewshed Areas is:

- To recognise the landscape importance and scenic quality of the Yarra River and Its environs
- To protect the skyline and views from the Yarra River and Its environs from the intrusion of inappropriate development
- To ensure the effect of development on the landscape importance and scenic quality of the Yarra River and Its environs is fully considered.

Department of Environment, Land, Water and Planning (DELWP)

Lower Yarra Corridor Study

In 2016, DELWP commissioned a study of the Lower Yarra River corridor to better understand and assess the need for new or amended planning controls and design guidelines for land in proximity to the Yarra River between Punt Road and Bulleen. The study defines river interface character areas and important views along the corridor.

North East Link aligns with the study's vision the Lower Yarra River will offer a variety of natural landscape settings and experiences in which its topography, banks and a continuous tree canopy are the dominant features in views of the river corridor.

The statement of significance is:

'The Yarra River and the landscape through which it passes have metropolitan significance as an environmental, aesthetic, cultural, recreation and tourism asset. The river corridor links parklands and reserves into a near-continuous vegetated landscape experience that provides a highly valued, secluded, natural environment, enjoyed by local and metropolitan communities.'

The study notes that any built form visible from the river has the ability to impact on its character, values and visual amenity.

Issues to be addressed:

- Maintaining a canopy of mature trees and existing vegetation as the dominant visual element in all parts of the river corridor.
- Minimising the visual impact of buildings, structures, fencing and earthworks within the river's landscape. This is a key consideration where developable land is located near or adjacent to the river environment.
- Where buildings, structures or fencing are visible from the river, ensuring they are designed to reflect the landscape character of the context.
- Protecting the natural landscape elements of riparian vegetation and bank topography.
- Ensuring the design principles for the Lower Yarra River corridor as a whole landscape are consistent across each municipality and implemented through the three planning schemes as relevant to that area.

Following relevant landscape character areas were identified:

- Leafy suburban river interface
- Current and ex-industrial

Legislation/policy Relevance to this impact assessment Parklands and recreations. Leafy suburban river interface character key features: Established residential neighbourhoods, either adjoining the river directly or located immediately beyond the parklands and recreation areas along the river corridor. Mature trees and understorey planting throughout private and public land (of exotic and native species), which creates a consistent tree canopy throughout each neighbourhood - described as the 'Yarra Backdrop Areas' in the Middle Yarra Concept Plan (1990).Mostly single or double-storey dwellings, often set spaciously apart. Undulating topography which includes lower areas adjoining the river flats and steeper rises from the river's edge. Main Yarra and Capital City Trails and public parkland providing access along the river's edge. Current and ex-industrial river interface character key features: Established industrial, commercial and residential buildings, mostly located on the crest line of the Yarra River corridor. Mature trees and understorey planting along the river banks in many locations which contribute to a vegetated character and compliment Yarra Bend Park on the opposite banks. Mix of building styles, scales and heights, including many higher scale buildings constructed close to the river's edge. Land rising steeply from the river's edge to flat topography beyond. Capital City Trail providing access along the river's edge, with a mix of public and private access to the river. Parks and recreation river interface character key features: Locally and regionally significant open spaces of formalised parkland and recreation facilities. Pockets of naturalistic bushland within conservation areas. Strong sense of seclusion and remoteness from the city in many locations, which is a unique attribute for inner Melbourne. Areas of flat topography of the river's floodplains which have been set aside as parkland. Other places of steeper or undulating topography, some of which feature distinctive rock formations along the river's banks. Main Yarra Trail and Capital City Trail which provide access throughout the corridor. Historic Studley Park and Fairfield Boathouses and surrounding parklands. Dights Falls in Kew/Abbotsford, where the Yarra River narrows and runs over an artificial weir built on a natural rock bar across the Yarra Bend Park which is an extensive complex of parkland extending across the northern and southern banks of the Yarra River in Kew, Abbotsford and Fairfield. The park includes a number of active recreation fields and golf courses on the flats of the river and extensive tracts of natural bushland on the elevated topography of the park. Other key parklands and recreation facilities include Studley Park, Abbotsford Convent, Collingwood Children's Farm, Como Park, Herring Island, Burnley Harbour, Burnley Horticultural Gardens,

Key views identified in the report:

Burnley Park and Kevin Bartlett Reserve.

Dynamic views of the river that can be obtained from moving along

the Main Yarra Trail, other local trails or access by boat.

Legislation/policy Relevance to this impact assessment Bridge crossings of major roads that provide views of the river for people travelling in cars, pedestrians or cyclists, including bridges at Johnston Street, Victoria Street, Bridge Road, Wallen Road and the Monash and Eastern Freeway. The pedestrian bridge crossings at Gipps Street and Walmer Street. Formal viewing points of Dights Falls. The many viewing points from within the Yarra Bend Park. Views to the broader river corridor from elevated points in Kew. Key objectives based on the findings of the Lower Yarra River Corridor Study include: Landscape and Environmental Values Retain and restore a continuous corridor of native vegetation along the waterway to provide for the movement of fauna, to enhance water quality and to contribute to the natural aesthetic of the river. Protecting views Protect and enhance the vegetation dominated views of the Yarra River corridor, particularly from public areas such as roads, paths, bridge crossings and open space reserves. Protect and enhance the skyline vista when viewed from the Yarra River, its banks, adjacent parks and trails, and scenic viewpoints within the valley. Ensure buildings and other structures on visible hill slopes and skylines are subordinate to vegetation and views of development from the Yarra River are filtered through trees. Minimise the visual intrusion of development, particularly when viewed from public areas adjacent to the river, including the Main Yarra Trail, and the river itself. Ensure public views of buildings are filtered through vegetation and trees. Built form siting and design Site and design development so that it responds sensitively to the topographical and landscape character of the Yarra River corridor. Ensure all development is designed with all external colours and finishes that are sympathetic to the natural landscape character settina. Ensure external building materials and design details complement the landscape and built form character of the area. Provide adequate spacing between buildings to maintain and create views to the Yarra River and its corridor. Ensure fencing in close proximity to the Yarra River does not create contrast with its landscape setting. Public open space and access Protect and enhance the amenity of public areas. Desired outcomes: New buildings do not overwhelm the width and scale of the waterway The waterway, river banks and recreational trails are not overshadowed New buildings contribute positively to the river's skyline along the northern bank and to avoid the appearance of a solid wall of development along the river

strengthened

element in the landscape

Naturalistic landscape setting of river and open spaces is

Tree canopy is retained and enhanced as the dominant visual

Legislation/policy	Relevance to this impact assessment		
	Strong landscaped edge to river and adjoining open spaces to screen views to buildings is maintained and strengthened		
	 Visibility of buildings from the river, adjoining parkland and the opposite bank is minimised. 		
Middle Yarra Corridor Study	In 2016, DELWP commissioned a study of the Middle Yarra River corridor to better understand and assess the need for new or amended planning controls and design guidelines for land in proximity to the Yarra River between Burke Road (Ivanhoe) and Warrandyte. The study defines river interface character areas and important views along the corridor.		
	The project aligns with the study's vision the Middle Yarra River will offer a variety of natural landscape settings and experiences in which its topography, banks and a continuous tree canopy are the dominant features in views of the river corridor.		
	The Statement of Significance is:		
	'The Yarra River and the landscape through which it passes have metropolitan significance as an environmental, aesthetic, cultural, recreation and tourism asset. The river corridor links parklands and reserves into a near-continuous vegetated landscape experience that provides a highly valued, secluded, natural environment, enjoyed by local and metropolitan communities.'		
	Issues to be addressed:		
	 Maintaining vegetation as the dominant visual element in all parts of the river corridor. 		
	 Buildings, structures or fencing that are visible from the river which can have an impact upon its landscape character and environment. This is a key consideration where developable land is located near or adjacent to the river environment. 		
	 Where buildings, structures or fencing are visible from the river, ensuring they are designed to be 'immersed' within the landscape. 		
	 Ensuring the design principles for the Middle Yarra River corridor as a whole landscape are consistent across each municipality and implemented through the three planning schemes as relevant to that area. 		
	 Ensuring the approach to management of public land is also consistent with the overall vision for the Middle Yarra corridor. 		
	Following relevant landscape character areas were identified:		
	Leafy Suburban river interface		
	Parklands and Recreation river interface		
	Yarra River Conservation river interface.		
	Key features of the Leafy Suburban river interface character type include:		
	 Established residential neighbourhoods, mostly located immediately beyond the parklands and recreation areas along the river corridor 		
	 Mature trees and understorey planting throughout private and public land (of exotic and native species), which creates a consistent tree canopy throughout each neighbourhood described as the 'Yarra Backdrop Areas' in the Middle Yarra Concept Plan (1990) 		
	 Single dwellings, one-two storey in scale, set spaciously apart Flat topography of the Yarra River flats, rising up to higher ground 		
	 Main Yarra Trail providing access along the northern side of the river, limited trail access on the southern side 		
	Adjacent to formal and informal parklands, recreation and sports grounds, picnic areas along the river		
	J		

Legislation/policy Relevance to this impact assessment Areas of undeveloped land used for horse agistment. Key features of the Parklands and Recreation river interface character type include: Flat topography of the river's floodplains, with many wetlands and billabongs Locally and regionally significant open space network of formalised open spaces and recreation facilities including golf courses, sports ovals (both private and public access), picnic areas and playgrounds Main Yarra Trail providing access along the northern and parts of the southern sides of the river Heide Museum of Modern Art and surrounding parklands Landscape and vegetation buffer between river corridor and residential areas beyond. Key features of the Yarra River Conservation river interface character type include: Flat topography of the river's floodplains, with many wetlands and billabongs, rising to the steep river banks at Eltham and Warrandyte Locally and regionally significant open space network of parklands and conservation areas Important habitat areas for numerous of flora and fauna species Discreet and minimal visitor facilities such as picnic areas and amenities Main Yarra Trail providing access along the northern and parts of the southern sides of the river Landscape and vegetation buffer between river corridor and residential areas beyond. Key views identified in the report: Dynamic views of the river that can be obtained from moving along the Main Yarra Trail, other local trails or access by boat Bridge crossings of major roads that provide views of the river for people travelling in cars, pedestrians or cyclists, including bridges at Burke Road and Banksia Street. Key objectives: Landscape and environmental values: Protect and enhance the environmental, aesthetic, cultural, recreation and tourism values of the Yarra River corridor Maintain the sense of seclusion that the Yarra River corridor provides Protect sites and features of pre and post contact cultural heritage significance Retain native vegetation, particularly established vegetation,

- Retain native vegetation, particularly established vegetation, mature vegetation and canopy trees on both public and private land along the Yarra River corridor
- Retain and restore a continuous corridor of native vegetation along the waterway to provide for the movement of fauna, to enhance water quality and to contribute to the natural aesthetic of the river
- Protect exotic vegetation which has heritage value or contributes to local landscape significance
- Increase native vegetation cover throughout the Yarra River corridor.

Protecting views:

 Protect and enhance the vegetation dominated views of the Yarra River corridor, particularly from public areas such as roads, paths, bridge crossings and open space reserves

Legislation/policy Relevance to this impact assessment Protect and enhance the skyline vista when viewed from the Yarra River, its banks, adjacent parks and trails, and scenic viewpoints within the valley Ensure buildings and other structures on visible hill slopes and skylines are subordinate to vegetation and views of development from the Yarra River are filtered through trees Minimise the visual intrusion of development, particularly when viewed from public areas adjacent to the river, including the Main Yarra Trail, and the river itself Ensure public views of buildings are filtered through vegetation and Built form siting and design: Ensure buildings are set back from the Yarra River and adjacent public open space Ensure the height of buildings is set below the predominant tree Avoid light spill and overshadowing on the banks and water of the Yarra River, and its adjacent public open space Site and design development so that it responds sensitively to the topographical and landscape character of the Yarra River corridor Ensure all development is designed with all external colours and finishes that are sympathetic to the natural landscape character Ensure external building materials and design details complement the landscape and built form character of the area Avoid development within identified setbacks to protect and enhance the riparian zone Provide adequate spacing between buildings to maintain and create views to the Yarra River and its corridor Ensure fencing in close proximity to the Yarra River does not create contrast with its landscape setting. River health and conservation: Ensure that all buildings and works are set back from the river's Protect natural landforms, natural stream geomorphology and geological formations of the Yarra River corridor, where practical Protect and enhance the health of the Yarra River including water quality (inclusive of runoff) in stream and streamside habitats, geological features and indigenous riparian vegetation Recognise the function of the Yarra River as part of a natural and urban drainage system Ensure development does not compromise bank stability or result in increased erosion Ensure development results in no net increase in the rate or quantity of stormwater, sediment or other pollutants entering watercourses or wetlands Protect and strengthen the function of the open space corridor as a wildlife corridor Protect and enhance habitats, including aquatic habitats, along the Yarra River corridor Ensure development does not impede the river's natural watercourse character and floodplain capacity Minimise the impacts of introduced flora and fauna on indigenous species and the potential for pest flora and fauna infestation in the Yarra River corridor. Public open space and access:

Legislation/policy	Relevance to this impact assessment
	Protect and enhance the amenity of public areas
	 Provide attractive environments that are conducive to a range of tourism and recreational activities
	 Maintain and enhance public access to and throughout the Yarra River corridor including access to the river itself and shared use of water access locations
	 Maintain and improve linear public open space and pathways along the Yarra River corridor, connecting existing and proposed open space areas upstream and downstream of the Middle Yarra River
	 Ensure commercial or intensive recreational facility development is located near other commercial or recreation uses to retain some secluded areas free from activity
	 Ensure the design of sporting and recreational structures complies with all other design and development objectives.
	Desired outcomes:
	 Views across residential neighbourhoods surrounding the river corridor are dominated by tree canopy
	 Strong landscaped edge to riverside parklands and conservation areas to screen views to buildings
	 Visibility of buildings from the river, adjoining parkland, the Main Yarra Trail and the opposite bank is minimised
	 Strong landscaped edge to river and adjoining open spaces to screen views to buildings is maintained
	Further encroachment of built form into the river corridor is avoided
	 Tree canopy is retained and enhanced as the dominant visual element in the landscape
	Established pattern of building setbacks that reflect the topography of the floodplain is maintained
	 Rural, bush landscape quality maintained, where this is part of the existing character.

Appendix C – Photomontages

Appendix D – Risk assessment

Appendix D - Risk assessment

1.1 Risk assessment methodology

An environmental risk assessment has been completed to identify environmental risks associated with construction and operation of North East Link. The risk-based approach is integral to the EES as required by section 3.1 of the Scoping Requirements and the *Ministerial guidelines for assessment of the environmental effects under the Environment Effects Act 1978.*

Specifically the EES risk assessment aimed to:

- Systematically identify the interactions between project elements and activities and assets, values and uses
- Focus the impact assessment and enable differentiation of significant and high risks and impacts from lower risks and impacts
- Inform development of the reference project to avoid, mitigate and manage environmental impacts
- Inform development of EPRs that set the minimum outcomes necessary to avoid, mitigate or manage environmental impacts and reduce environmental risks during delivery of the project.

This section presents an overview of the EES risk assessment process. EES Attachment III Environmental risk report describes each step in the risk assessment process in more detail and contains a consolidated risk register.

This technical report describes the risks associated with the project on landscape and visual impacts. Wherever risks relating to this study are referred to, the terminology 'risk LV01' is used. Wherever EPRs relating to this study are referred to, the terminology 'EPR LV1' is used. The risk assessment completed for this study is provided Appendix A.

1.2 Risk assessment process

The risk assessment process adopted for North East Link is consistent with AS/NZS ISO 31000:2009 Risk Management Process. The following tasks were undertaken to identify, analyse and evaluate risks:

- Use existing conditions and identify applicable legislation and policy to establish the context for the risk assessment
- Develop likelihood and consequence criteria and a risk matrix
- Consider construction and operational activities in the context of existing conditions to determine risk pathways
- Identify standard controls and requirements (Environmental Performance Requirements (EPRs) to mitigate identified risks
- Assign likelihood and consequence ratings for each risk to determine risk ratings considering design, proposed activities and standard EPRs.

While there are clear steps in the risk process, it does not follow a linear progression and requires multiple iterations of risk ratings, pathways and EPRs as the technical assessments progress. Demonstrating this evolution, a set of initial and residual risk ratings and EPRs are produced for all technical reports. Figure 1 shows this process.

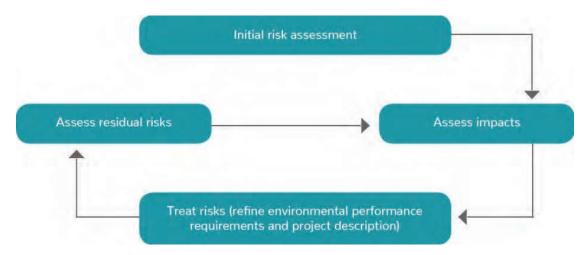


Figure 1 Risk-analysis approach

1.2.1 Rating risk

Risk ratings were assessed by considering the consequence and likelihood of an event occurring. In assessing the consequence, the extent, severity and duration of the risks were considered. These are discussed below.

1.2.2 Assigning the consequences of risks

'Consequence' refers to the maximum credible outcome of an event affecting an asset, value or use. Consequence criteria as presented in Chapter 4 – EES assessment framework, were developed for the North East Link EES to enable a consistent assessment of consequence across the range of potential environmental effects. Consequence criteria were assigned based on the maximum credible consequence of the risk pathway occurring. Where there was uncertainty or incomplete information, a conservative assessment was made on the basis of the maximum credible consequence.

Consequence criteria have been developed to consider the following characteristics:

- Extent of impact
- Severity of impact
- Duration of threat.

Severity has been assigned a greater weighting than extent and duration as this is considered the most important characteristic.

Each risk pathway was assigned a value for each of the three characteristics, which were added together to provide an overall consequence rating.

Further detail on the consequence criteria are provided Chapter 4 – EES assessment framework.

1.2.3 Assigning the likelihood of risk

'Likelihood' refers to the chance of an event happening and the maximum credible consequence occurring from that event. The likelihood criteria are presented in Table 1.

Table 1 Likelihood of an event occurring

Planned	The event is certain to occur			
Almost certain	The event is almost certain to occur one or more times a year			
Likely	The event is likely to occur several times within a five-year timeframe			
Possible	The event may occur once within a five-year timeframe			
Unlikely	The event may occur under unusual circumstances but is not expected (i.e. once within a 20-year timeframe)			
Rare	The event is very unlikely to occur but may occur in exceptional circumstances (i.e. once within a 100-year timeframe)			

1.2.4 Risk matrix and risk rating

Risk levels were assessed using the matrix presented in Table 2.

Table 2 Risk matrix

	Consequence					
Likelihood	Negligible	Minor	Moderate	Major	Severe	
Rare	Very low	Very low	Low	Medium	Medium	
Unlikely	Very low	Low	Low	Medium	High	
Possible	Low	Low	Medium	High	High	
Likely	Low	Medium	Medium	High	Very high	
Almost certain	Low	Medium	High	Very high	Very high	
Planned	Planned (negligible consequence)	Planned (minor consequence)	Planned (moderate consequence)	Planned (major consequence)	Planned (severe consequence)	

Planned events

North East Link would result in some planned events, being events with outcomes that are certain to occur (i.e. planned impacts such as land acquisition), as distinct from risk events where the chance of the event occurring and its consequence is uncertain. Although planned events are not risks, these were still documented in the risk register as part of Attachment III – Risk report for completeness and assigned a consequence level in order to enable issues requiring further assessment or treatment to be prioritised.

These planned events were assessed further through the impact assessment process.

Risk evaluation and treatment

The risk assessment process was used as a screening tool to prioritise potential impacts and the subsequent level of assessment undertaken as part of the impact assessment. For example, an issue that was given a risk level of medium or above, or was identified as a planned event with a consequence of minor or above, would go through a more thorough impact assessment process than a low risk.

Where initial risk ratings were found to be 'medium' or higher, or were planned events with a consequence of 'minor' or higher, options for additional or modified EPRs or design changes were considered where practicable. It should be noted that the consequence ratings presented in the risk register are solely based on the consequence criteria presented in Attachment III –

Risk report. Further analysis and evaluation of the impacts potentially arising from both risks and planned events and information on how these would be managed is provided in Section 9.

1.3 Summary of risk assessment

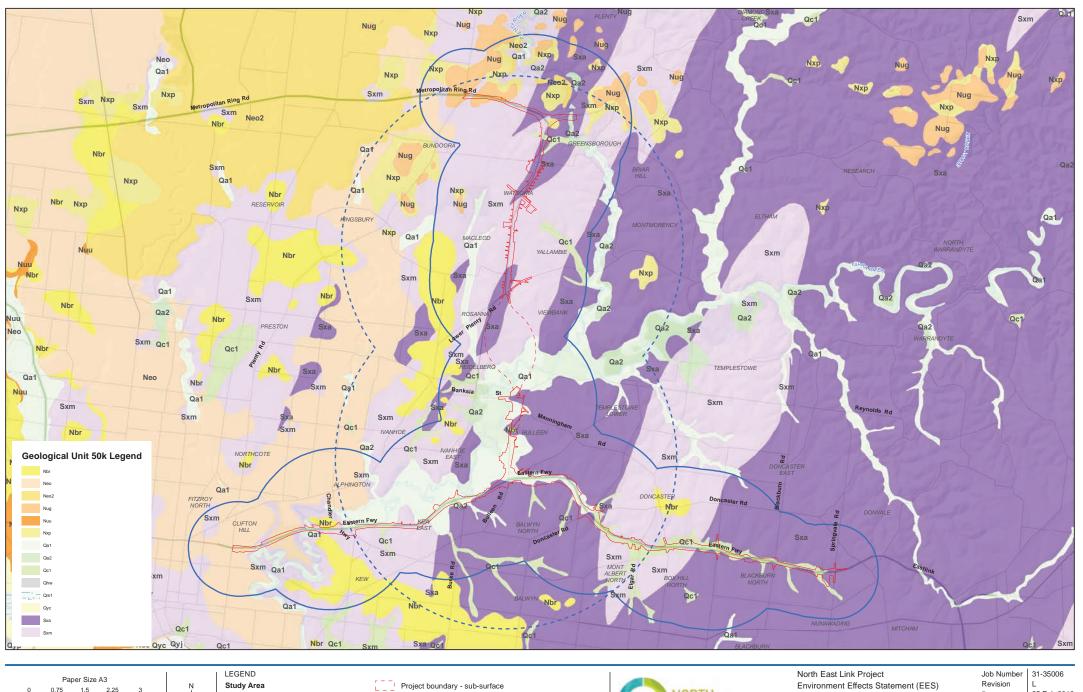
Risks were assessed for the construction and operation phases of the project. The identified risks and associated residual risk ratings are listed in Table 3. The likelihood and consequence ratings used to determine the residual risk rating and the adopted EPRs are presented in Section 10.

The process also enabled identification of effects that have a well-defined consequence and are certain to occur. These are termed planned effects are not subject to the risk assessment process as there is no risk element. These planned effects are designated as 'planned' in Table 3 and are discussed in Section 9 of this technical report.

Table 3 Landscape and visual impact assessment risks

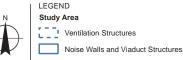
Risk ID	Potential threat and effect on the environment	Risk rating				
Construction	Construction					
Risk LV01	Construction laydown, works area, materials storage and stockpiling causes adverse impacts to views experienced from within parklands and recreation, urban forest, mixed use activity centre, suburban residential and road corridor character areas.	Planned (moderate consequence)				
Operation						
Risk LV02	Elevated road structures, road infrastructure, noise walls, flood walls, throw screens, viaducts, pedestrian bridges, vegetation loss, ventilation structures, works area and open cut causes adverse impacts to views experienced from within parklands and recreation, urban forest, mixed use activity centre, suburban residential and road corridor character areas.	Planned (severe consequence)				
Risk LV03	Noise walls, loss of vegetation and roadside landscape treatment along the Eastern Freeway widening causes adverse impacts to the Eastern Freeway landscape character.	Planned (severe consequence)				
Risk LV04	Shading caused by elevated structures and noise walls causes adverse impacts to residences, open space users, schools and other sensitive receptors.	Planned (severe consequence)				
Risk LV05	Lighting infrastructure causing adverse impacts to views and increased light spill experienced from residential properties.	Planned (severe consequence)				
Risk LV06	Elevated road structures, road infrastructure, noise walls, throw screens, viaducts, pedestrian bridges, vegetation loss, ventilation structures and open cut causes adverse impacts to views experienced from within the private domain.	Planned (severe consequence)				

Appendix E – Existing conditions maps





Grid: GDA 1994 MGA Zone 55



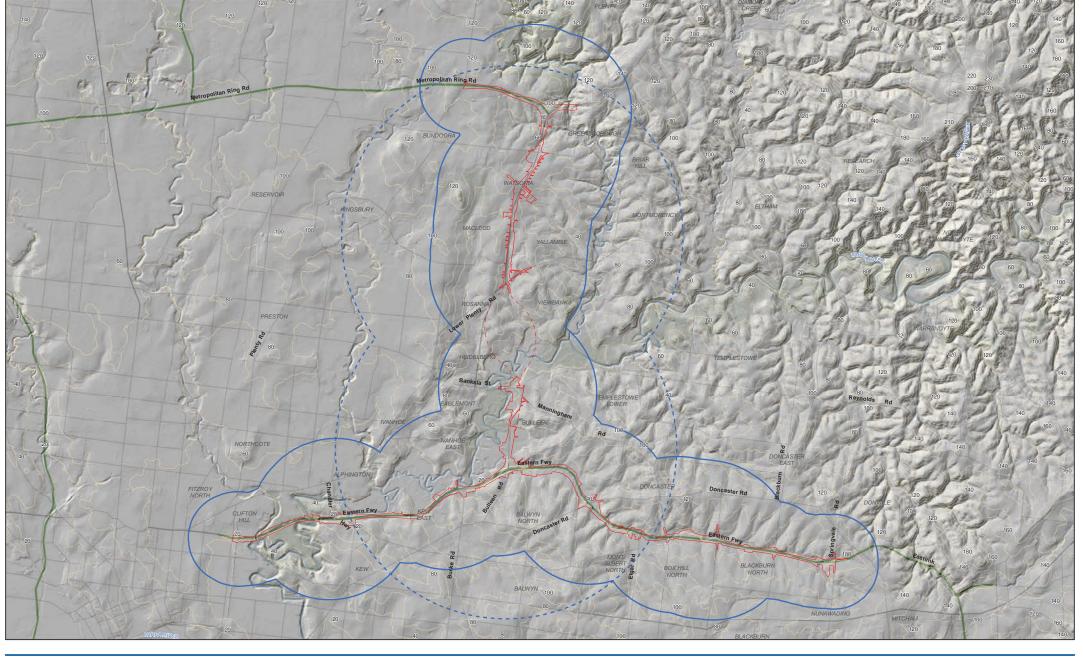


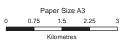
Date

25 Feb 2019

Geology map

Project boundary - surface





Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 55

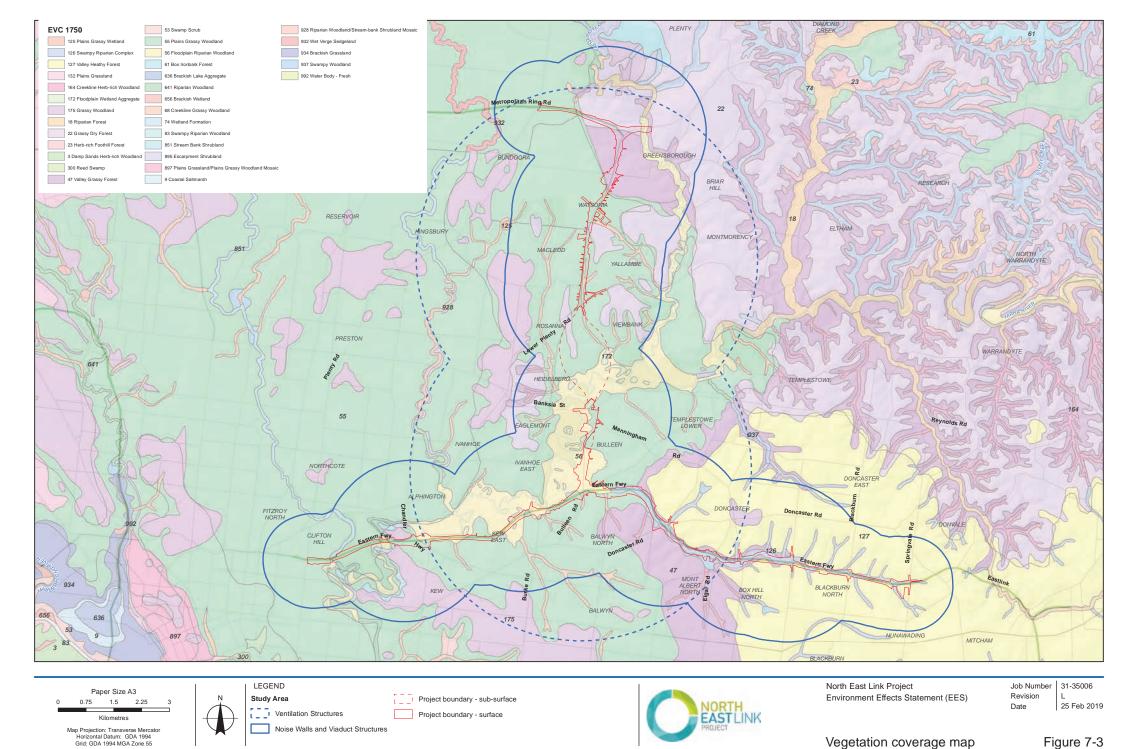


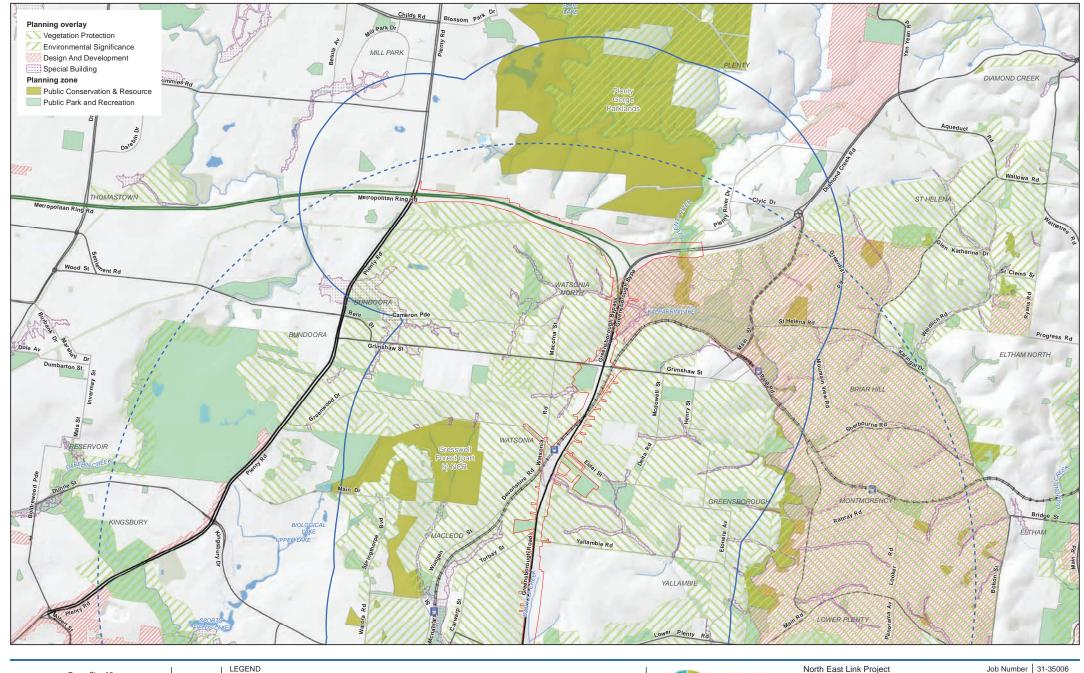


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25 Feb 2019

Topography and waterways







Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 55





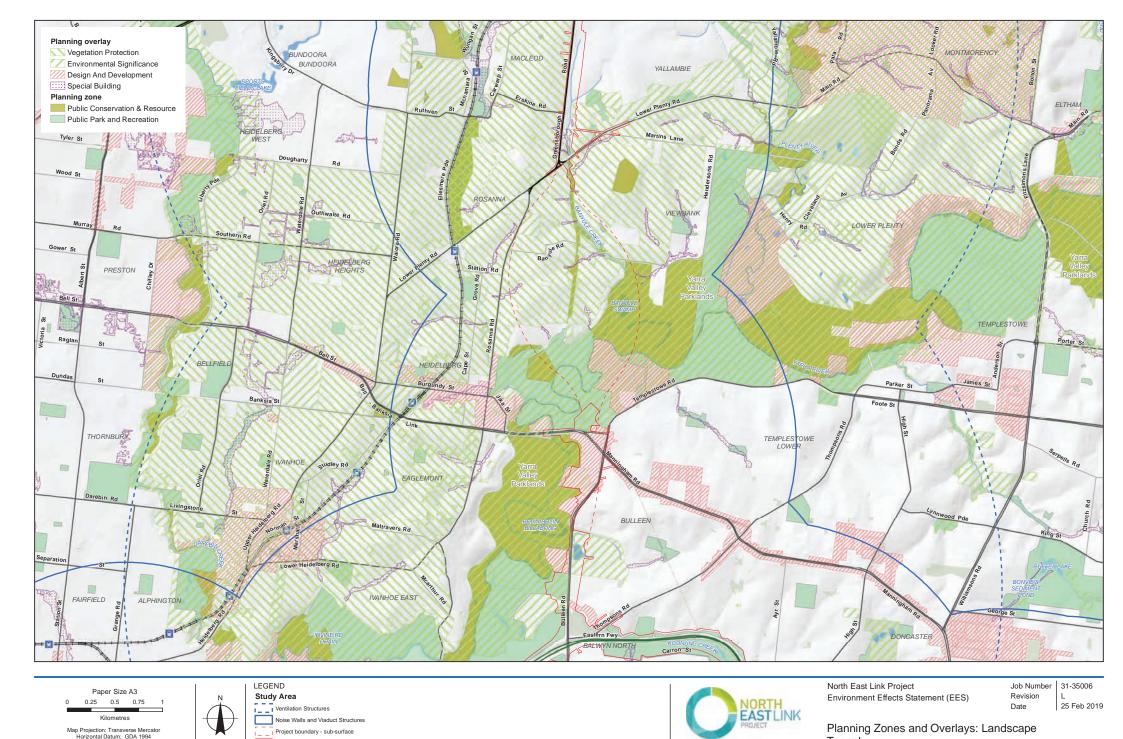
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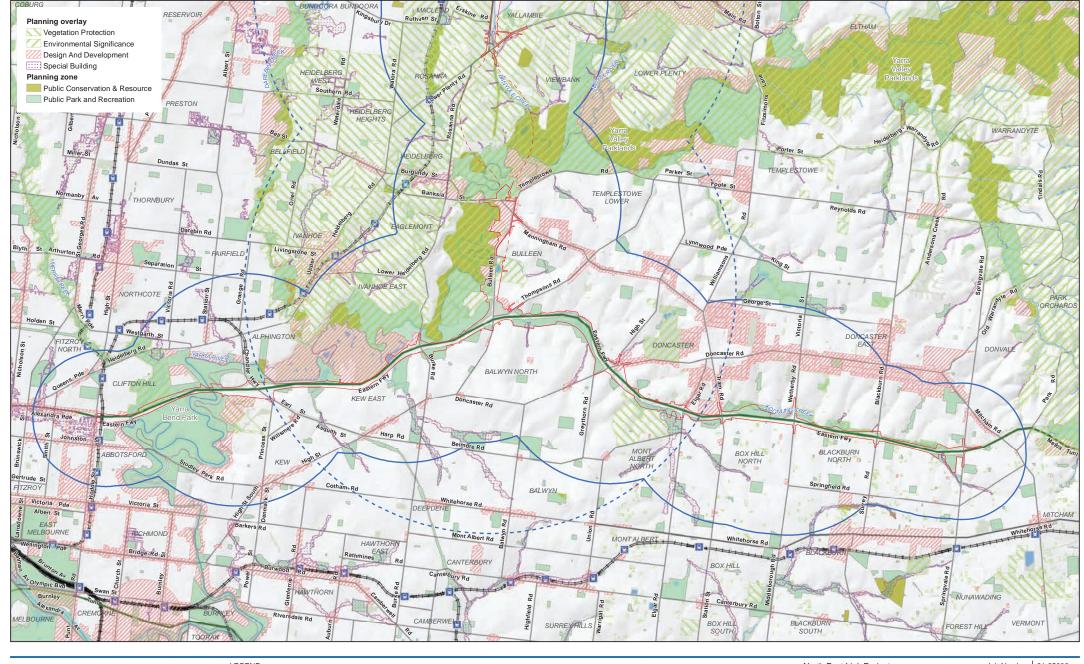
 Date
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Planning Zones and Overlays: Landscape M80 to Lower Plenty Road

Figure 7-4



Tunnel





Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 55



LEGEND Study Area Ventilation Structures Project boundary - sub-surface

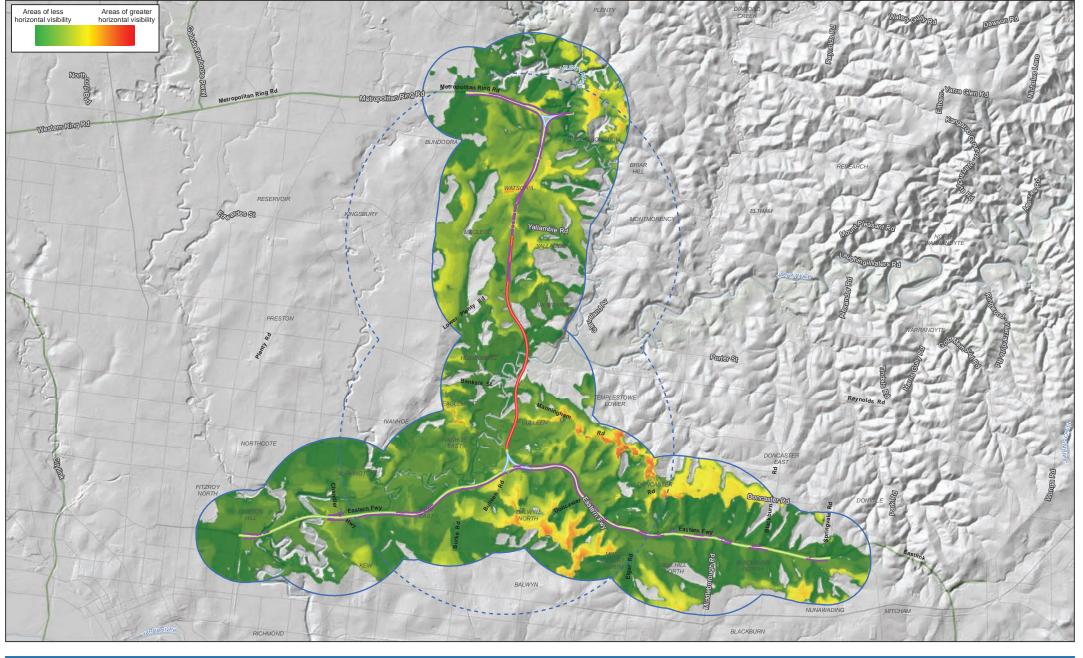


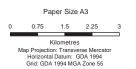
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Planning Zones and Overlays: Landscape Eastern Freeway upgrades

Figure 7-6

Appendix F – Zone of theoretical visibility maps







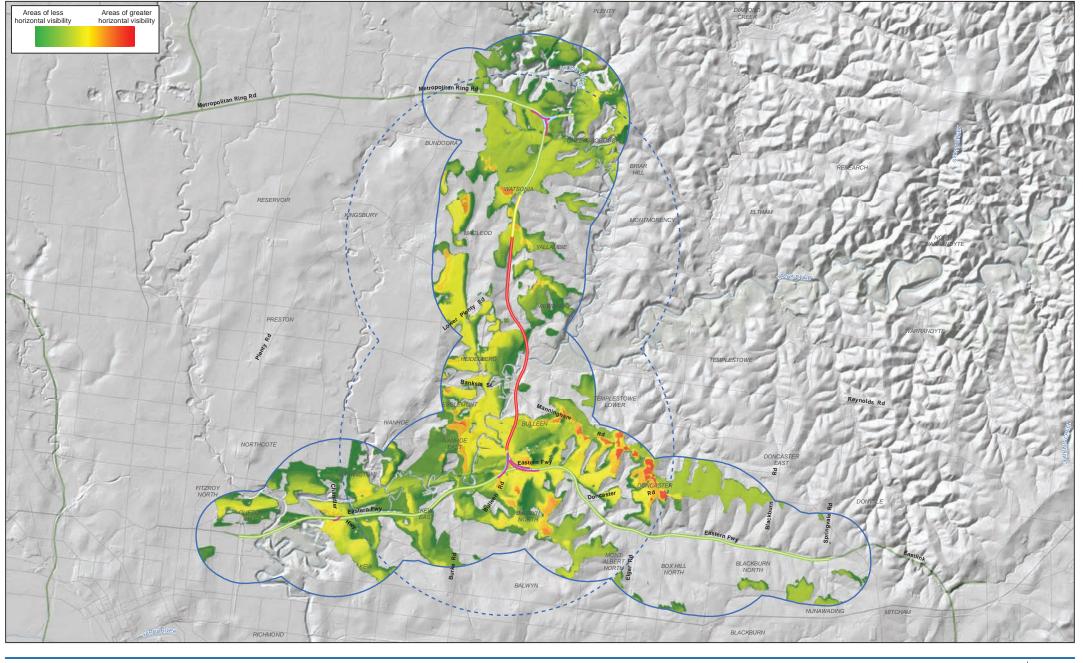


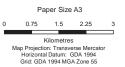
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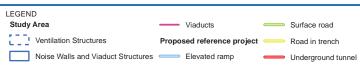
25 Feb 2019

Zone of Theoretical Visibility Noise Walls







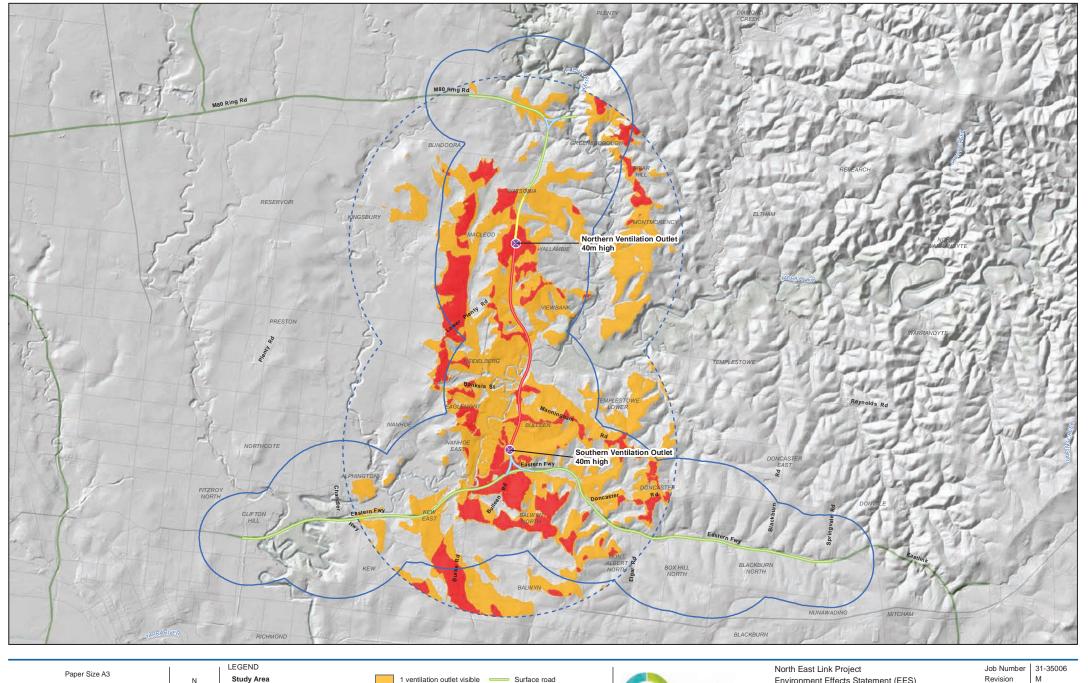


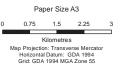


North East Link Project Environment Effects Statement (EES) Job Number 31-35006 Revision Date

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Zone of Theoretical Visibility Viaducts







Surface road 2 ventilation outlets visible Underground tunnel

Elevated ramp



Environment Effects Statement (EES)

Revision Date 01 Mar 2019

Zone of Theoretical Visibility Ventilation outlets

Figure 8-3

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