

Environment Effects Act 1978

SCOPING REQUIREMENTS

For

WESTERN DISTRIBUTOR PROJECT

April 2016



List of Abbreviations

AH Act	<i>Aboriginal Heritage Act 2006</i>
CBD	Central business district
CHMP	Cultural Heritage Management Plan
CLP Act	<i>Catchment and Land Protection Act 1994</i>
DELWP	Department of Environment, Land, Water and Planning (formerly DTPLI)
DEDJTR	Department of Economic Development, Jobs, Transport and Resources
EE Act	<i>Environment Effects Act 1978</i>
EES	Environment Effects Statement
EMF	Environmental Management Framework
EMP	Environmental Management Plan
EMS	Environmental Management System
EP Act	<i>Environment Protection Act 1970</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FFG Act	<i>Flora and Fauna Guarantee Act 1988</i>
IAU	Impact Assessment Unit (within DELWP)
P&E Act	<i>Planning and Environment Act 1987</i>
PHW Act	<i>Public Health and Wellbeing Act 2008</i>
RM Act	<i>Road Management Act 2004</i>
SEPP	State Environment Protection Policy
TI Act	<i>Transport Integration Act 2010</i>
TRG	Technical Reference Group

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1. Introduction

On 18 December 2015 the Minister for Planning (the Minister) declared the Western Distributor Project (project) to be “public works” under section 3 of the *Environment Effects Act 1978* (EE Act). As a consequence, an Environment Effects Statement (EES) must be prepared in respect of the project.

This document sets out the scoping requirements for the preparation of the EES. The scoping requirements identify the matters to be investigated and documented in the EES.

The Department of Economic Development, Jobs, Transport and Resources (DEDJTR) has been designated as the proponent and will be supported by Transurban as a key partner for the approvals process.

1.1. Background

In March 2015 Transurban submitted an unsolicited bid to the Victorian Government for the Western Distributor Project under the Market Led Proposals Guideline.

In December 2015, the Victorian Government announced commitment to the delivery of the project. DEDJTR assumed the responsibility of developing the project as proponent and submitted a project outline¹ to the Minister for consideration under the EE Act. The project is subject to ongoing design development, which is to be informed by consultation with the community and key stakeholders. This may entail consideration of relevant alternatives. A business case for the project was prepared by the Victorian Government, and published in December 2015 setting out the rationale for the project.

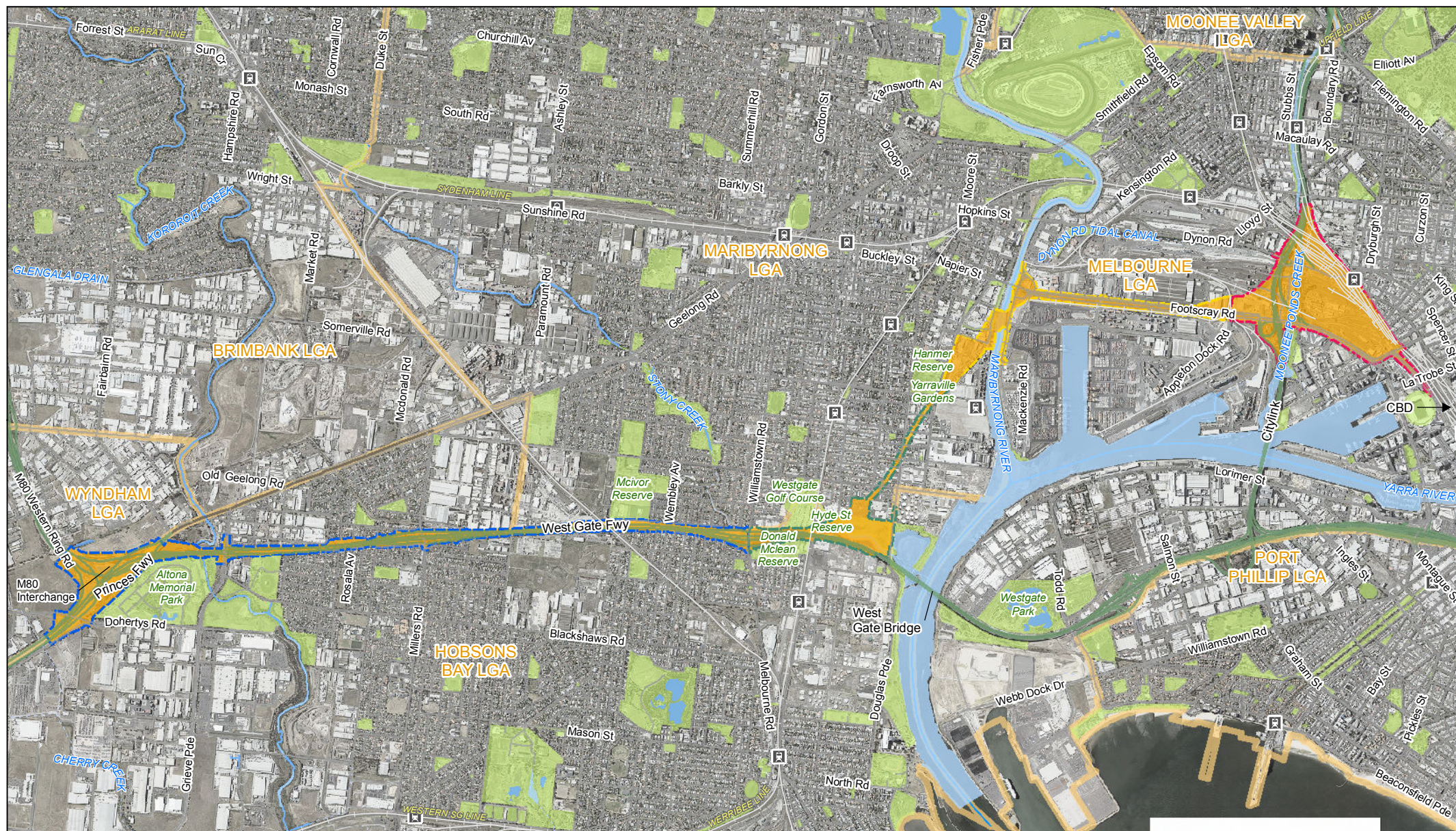
1.2. The project and setting

The project will provide for a new freeway connection and river crossing from Melbourne’s west over the Maribyrnong River, which will be an alternative route to the West Gate Bridge, and a direct connection to the Port of Melbourne. The project involves widening of the West Gate Freeway, a new link from the West Gate Freeway to CityLink, and new connections to the northwestern edge of the Melbourne CBD as shown in Figure 1.

As defined in the Project Outline, the proposed project has four key components that have been divided into seven precincts as follows:

- West Gate Freeway Widening
 - Precinct 1 – M80 Interchange to Millers Road
 - Precinct 2 – Millers Road to Williamstown Road.
- Western Distributor – Yarraville Alignment with Tunnel
 - Precinct 3 – Williamstown Road to the southern Tunnel Portals
 - Precinct 4 – Yarraville Tunnel.
- Western Distributor – Bridge, Elevated Road and Port Access
 - Precinct 5 – Northern Tunnel Portals to the Maribyrnong River
 - Precinct 6 – Maribyrnong River Crossing, Footscray Road Viaduct and Port Access.
- Western Distributor – Eastern Interchange and City Bypass
 - Precinct 7 – Eastern Interchange and City Access.

¹ It should be noted that the project defined in the project outline does not include the Monash Freeway upgrade and improving access to Webb Dock elements of the broader Western Distributor Project, which are being assessed through other approval processes.



Paper Size A4
0 250 500 1,000
Metres

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



LEGEND

— LGA boundary
— Project Area

Project components

— West Gate Freeway – Widening
& Road Connections

— Western Distributor – Eastern
Interchange & CBD bypass

— Western Distributor – Elevated
road and port access

— Western Distributor – Yarraville
alignment (including tunnel)



DEDJTR
Western Distributor

Job Number 31-32966
Revision B
Date 15 Feb 2016

Key Features

Figure 1

G:\3132966\GIS\Maps\Deliverables\KBM\3132966_009_KBM_GENERAL_A4L.mxd [KBM: 114]

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Data source: Vicmap, DELWP, 2015; Alignment, GHD, 2015 Created by: NKostraby

The proposed widening of the existing West Gate Freeway includes:

- Additional two lanes in each direction to upgrade capacity of the Freeway to six lanes in each direction, generally following an alignment between Western Ring Road (M80) and Williamstown Road; and
- Separated carriageways with connections to enable the eastbound connections to the Western Distributor and the West Gate Bridge generally in the vicinity of Williamstown Road, and the westbound connections to Princess Highway and M80 from Western Distributor and the West Gate Bridge generally in the vicinity of Grieve Parade.

The Western Distributor alignment through Yarraville comprises the following key works:

- New ramps for vehicles to access Hyde Street; and
- Two bored tunnels ultimately catering for three traffic lanes in both directions under Yarraville.

The Western Distributor – Elevated Road and Port Access component of works involves:

- A bridge across the Maribyrnong River connecting the new tunnel and Footscray Road;
- Connections to the Port of Melbourne; and
- Viaducts (elevated roads) in both directions above Footscray Road.

Western Distributor – Eastern Interchange and City Bypass works comprise of:

- Inbound and outbound connections to CityLink; and
- Access to Docklands, West Melbourne and central or inner City generally through connections to Footscray Road, Dynon Road and Wurundjeri Way.

Most of the proposed works associated with the widening of the West Gate Freeway lie within the existing road reserve. Western Distributor components, including elevated structures, tunnel portals and bridge crossings and associated construction laydown and work areas will occur on urban land. This urban land is currently used for a range of drainage, industrial, commercial, recreational and residential purposes, including for:

- Existing residential areas – including Yarraville, Spotswood, Footscray, West Melbourne, North Melbourne, Kingsville, South Kingsville, Altona North, and Brooklyn;
- Waterways – Kororoit Creek, Stony Creek, the Maribyrnong River and Moonee Ponds Creek;
- Port of Melbourne;
- Power infrastructure – Brooklyn and Yarraville terminal stations and high voltage power lines;
- Road infrastructure – Western Ring Road, Princes Freeway, West Gate Freeway, Footscray Road and CityLink;
- Pedestrian infrastructure – two pedestrian bridges cross the West Gate Freeway;
- Cycling infrastructure – nearby cycling paths include Federation Trail, Footscray Road shared path, the Moonee Ponds Creek, Kororoit Creek and Maribyrnong River trails, other on-road bike paths;
- Rail infrastructure – the rail yards north of Footscray Road and the Sunbury, Williamstown and Upfield railway lines;
- Public open space areas – McIvor Reserve, Donald McLean Reserve, Hyde Street Reserve/Stony Creek Park, Westgate Public Golf Course, Yarraville Gardens and creek and river corridors;
- Community facilities – Yarraville Community Centre;
- Nearby urban renewal precincts – North and South Dynon, E-Gate, Arden Macaulay, West Melbourne, Hobsons Bay City Council's Precinct 15, and Bradmill and Docklands; and
- Other underground infrastructure – petroleum pipelines and North Yarra Main sewer.

2. Purpose of this document

The project works were declared on 18 December 2015 to be “public works” for the purposes of the EE Act by Order of the Minister under section 3(1) of the EE Act, published in the Government Gazette on 23 December 2015. Under section 4(1) of the EE Act DEDJTR, as the project proponent, must prepare an Environment Effects Statement (EES) to be submitted to the Minister for the Minister’s assessment of the environmental effects of the works.

The Order of the Minister also specified, under section 3(3) of the EE Act, procedures and requirements that are to apply to an EES for the works. The full procedures and requirements are attached (see Appendix A). The Minister’s Order specifies that the EES is to document:

..... investigations of potential environmental effects of the proposed project, including the feasibility of design alternatives and associated environmental mitigation and management measures, in particular for:

- a. potential effects of construction works on noise, dust and vibration levels, and hydrology and quality of groundwater and surface water;*
- b. potential effects arising from disturbance of contaminated soils or groundwater, acid sulfate soils or geophysical conditions, including risks related to land and river bank or bed stability;*
- c. potential effects on amenity and environmental quality of the adjacent residential areas from the works’ construction and operation, in particular air emissions from the proposed ventilation stacks and increased noise levels;*
- d. potential effects on visual, landscape, recreational values of areas in the vicinity of the proposed works;*
- e. potential effects on native vegetation and biodiversity, in particular listed flora and fauna species and communities;*
- f. potential effects on Aboriginal and cultural heritage values;*
- g. potential effects on existing land uses, (including Crown Land) and community and business activities, including with respect to acquisitions, services, connectivity and social impacts;*
- h. potential temporary and permanent effects on transport network and services, both for residents and businesses located in the vicinity of the proposed and related works and for the broader community; and*
- i. other effects on land uses and the community.*

The Order also provided for the preparation of draft scoping requirements that set out in more detail the matters to be investigated in the EES. The draft scoping requirements were exhibited between 22 February and 15 March 2016 and 14 submissions were received by the Department of Environment, Land, Water and Planning at the conclusion of that period. .

This document is the final *Scoping Requirements for the Western Distributor Project* (Scoping Requirements) prepared in response to the Minister’s Order having considered the comments received in respect of the draft scoping requirements. It sets out the particular matters to be investigated and documented in the EES for the project.

While these Scoping Requirements are intended to be complete in their coverage of issues and matters, the EES will also need to address any significant issues not identified in this document, that may emerge during the EES investigations and consultation process, which are otherwise relevant to statutory decisions to be informed by the assessment process under the EE Act.

These Scoping Requirements have been prepared to ensure that the EES to be prepared by DEDJTR’s Project Team:

- Properly responds to the Order of the Minister;
- Identifies the potentially significant environmental effects of the works;

- Explains how the environmental effects of the works are proposed to be managed for the different stages and aspects of the project; and
- Provides sufficient and appropriate information to allow the Minister to make an assessment of the residual environmental effects of the works under the EE Act.

3. Assessment process and required approvals

3.1. What is an EES?

An EES is a document prepared by the project proponent that describes the proposed project and its potential environmental effects. An EES should enable stakeholders and decision-makers to understand the likely environmental effects of the project and how they are proposed to be managed.

An EES has two main components:

- The EES main report – This is an integrated, plain English document that analyses the effects of the project drawing upon data and technical studies that consider any relevant statutory requirements such as specific limits for emissions to the environment; and
- Technical appendices – These are the technical study reports documenting investigations and analysis of the potential effects of the project that inform the EES main report. These will be exhibited in full together with the EES main report.

The potential environmental effects that require technical studies are set out in section 5 of this document.

3.2. The EES process

As proponent, DEDJTR is responsible for preparing the EES, including preparing technical studies and undertaking stakeholder consultation, while the Department of Environment, Land, Water and Planning (DELWP) is responsible for managing the EES process. The EES process concludes with the Minister's Assessment of the environmental effects of the project, which is issued to relevant statutory decision-makers to inform decisions on the project. The Minister's Assessment will also be used to inform the final form of the project that is to be implemented.

The EES process has the following key steps:

- Preparation and then exhibition for public comment of the Draft Scoping Requirements by DELWP on behalf of the Minister;
- Finalisation and issuing of the Scoping Requirements by the Minister;
- Preparation of EES draft main report and technical studies by the proponent;
- Review of the proponent's draft documentation by DELWP and a Technical Reference Group (TRG) (see section 3.2.1 below)²;
- Completion of the EES by the proponent;
- Review of the complete EES by DELWP on behalf of the Minister to establish its adequacy for public exhibition;
- Exhibition of the EES for 30 business days and invitation for public comment by DELWP on behalf of the Minister;
- Appointment of an inquiry under section 9 of the EE Act by the Minister to:
 - Review the EES and any public submissions
 - Conduct public hearings
 - Provide a report to the Minister.
- Provision of the Minister's Assessment of the project to decision-makers.

Further information on the EES process can be found on the department's website at <http://www.delwp.vic.gov.au/planning/environmental-assessment>

² For critical components of the EES studies, peer review by an external, independent expert engaged by the proponent may also be appropriate.

3.2.1 Technical Reference Group

DELWP will convene an agency-based Technical Reference Group (TRG) to advise itself and the proponent, as appropriate, on:

- Applicable policies, strategies and statutory provisions;
- The proponent's public information and stakeholder consultation program for the EES;
- The Scoping Requirements for the EES;
- The design and adequacy of technical studies for the EES;
- Responses to issues arising from the EES investigations;
- The technical adequacy of draft EES documentation; and
- Coordination of statutory processes.

The TRG will comprise invited representatives of relevant state government agencies and departments, and Councils for the four municipalities in which project works are proposed.

3.2.2 Public engagement

Consultation is a key aspect of the EES process as it enables stakeholders' knowledge and views to be considered in both project planning and formal decision-making. Consultation during the EES process encompasses both:

- Formal opportunities for public input into the setting of scoping requirements for the EES and the review of the exhibited EES; and
- Consultation conducted by the proponent with stakeholders prior to and during EES investigations, to assist in the development of a sound EES.

The proponent is responsible for informing and engaging with the public and other relevant stakeholders to identify and respond to their concerns during the EES process. Relevant stakeholders include government bodies and authorities, potentially affected parties, the community and interested organisations and individuals.

An EES Consultation Plan is to be prepared and implemented by the proponent to ensure that the public and stakeholders are familiar with the EES investigations and are consulted on issues of potential concern. The proponent's 'EES Consultation Plan' will be published on the DELWP website and updated as necessary.

The plan must:

- Identify relevant stakeholders;
- Characterise the stakeholder groups in terms of their interests, concerns and consultation needs and potential to provide local knowledge;
- Describe the consultation methods and approaches to be used and outline a schedule of consultation activities; and
- Outline how inputs from stakeholders will be recorded, considered and/or addressed in the preparation of the EES.

3.3. Required Victorian approvals

The project may require a range of approvals under Victorian legislation, including:

- Amendment to the Melbourne, Hobsons Bay, Maribyrnong and Wyndham planning schemes and planning permits (if required) under the *Planning and Environment Act 1987* (P&E Act);
- An approved Cultural Heritage Management Plan (CHMP) under the *Aboriginal Heritage Act 2006*;
- Works Approval under the *Environment Protection Act 1970*;

- Consent to disturb an archaeological site under the *Heritage Act 1995*;
- Consent to undertake works near waterways under the *Water Act 1989*;
- Permit for the removal of listed flora and fauna from public land under the *Flora and Fauna Guarantee Act 1988* and, possibly, to take wildlife under the *Wildlife Act 1975*;
- Consent under the *Crown Land (Reserves) Act 1978* for works on public land;
- Consent under the *Road Management Act 2004*; and
- Consent under the *Conservation, Forests & Lands Act 1987*.

The EES process is to be coordinated with other primary approvals and related assessment requirements where possible. Within the framework of the EES process, DELWP will coordinate the preparation and exhibition of the EES with other relevant approvals, including associated assessment and consultation requirements. For example, a draft planning scheme amendment (and any necessary planning permit applications) will likely be placed on public exhibition concurrently with the EES.

3.4. Outcome of EPBC Act referral

The proponent has also referred the project to the Australian Government under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The delegate for the Minister for the Environment determined on 14 January 2016 that the project is “not a controlled action” and, hence, requires no assessment or approval under the EPBC Act.

4. Matters to be addressed in the EES

4.1. General approach

The EES should address the effects of all components and stages of the project upon the environment – being... *“the physical, biological, heritage, cultural, social, health, safety and economic aspects of human surroundings, including the wider ecological and physical systems within which humans live.”* (Ministerial Guidelines, p. 2).

The EES should present an assessment of the effects of the construction and operation phases of the project on the environment. It is important that the EES identify and propose measures to avoid, mitigate and manage these effects.

The investigations into the project's environmental effects and the preparation of the EES should be consistent with the principles of a systems approach and risk-based approach, as outlined in the Ministerial Guidelines (p. 14):

A systems approach involves the consideration of potentially affected environmental systems and interacting environmental elements and processes. This will enable potential interdependencies to be identified, helping to focus relevant investigations and identify opportunities to avoid, mitigate or manage adverse effects. An inter-disciplinary approach should be adopted where appropriate.

A risk-based approach should be adopted in the assessment of environmental effects so that suitable, intensive, best practice methods can be applied to accurately assess those matters that involve relatively high levels of risk of significant adverse effects and to guide the design of strategies to manage these risks. Simpler or less comprehensive methods of investigation may be applied to matters that can be shown to involve lower levels of risk.

The EES should put forward a sound rationale for the level of assessment and analysis undertaken for any particular impact or combination of impacts. For example, some issues are most appropriately assessed using a quantitative approach e.g., application of standards for air quality, and others through a qualitative approach e.g., visual amenity.

Assessments should address direct and indirect, combined, short- and long-term, beneficial and adverse effects. In the case of potentially significant effects, the EES's analysis should be detailed enough to provide a good understanding of the nature of the effects including:

- Potential and residual effects on individual environmental assets, including magnitude, extent and duration of change in the values of each asset after intended avoidance and mitigation measures have been taken into account;
- The likelihood of adverse effects occurring;
- Any gaps in knowledge or other factors that make it difficult to predict the nature or extent of an adverse effect; and
- Further measures that are proposed for dealing with residual effects (for example, monitoring programs, engagement actions, contingency plans), including specific details of how the measures address relevant policies.

4.2. General content and style of the EES

The content of the EES and related investigations is to be guided by this document (Scoping Requirements) and the Ministerial Guidelines. The EES should also address any other significant issues that may emerge during the investigations or stakeholder engagement. Ultimately it is DEDJTR's responsibility as proponent to ensure that adequate studies are undertaken to support the assessment of environmental effects, focusing primarily on significant effects.

The EES main report should provide a clear, succinct, objective and well-integrated analysis of the potential effects of the proposed project and relevant alternatives, including proposed mitigation and management measures. Overall, the main report should include:

- An executive summary of the potential environmental effects of the project;
- A description of the entire project, including its objectives, key elements, associated requirements for new infrastructure and use of and connections to the existing infrastructure;
- A description of relevant alternatives capable of substantially meeting the project's objectives that also offer environmental or other benefits (as well as the basis for the choice if a preferred alternative is nominated);
- An outline of the approvals required for the project to proceed;
- An outline of the impact evaluation framework;
- Descriptions of the existing environment, to the extent necessary to enable the assessment of potential effects;
- Intended measures for avoiding, minimising, managing and monitoring effects described in an environment management framework;
- Any proposed offset measures where avoidance and mitigation measures will not adequately address effects on environmental values;
- Effects of the project (and relevant alternatives) and levels of certainty around those on environmental assets and values, relative to the "no project" scenario;
- Responses to issues raised through public and stakeholder engagement; and
- An integrated analysis of the effects of the project that synthesises the range of effects identified in the EES.

DEDJTR must also prepare a concise non-technical summary document (hard copy A4) for free distribution to interested parties. The EES summary document should summarise the proposal and key environmental effects and include details of the EES exhibition and availability of the EES documentation.

Close consultation by DEDJTR with DELWP and the TRG during the investigations and preparation of the EES will be necessary to minimise the need for revisions prior to authorisation of the EES for public exhibition and to ensure that appropriate weighting and consideration of issues is contained within the EES.

Detail on the required scope and content of the EES is covered in the following sections.

4.3. Project description and context

The EES is to contain a section that describes the project in sufficient detail both to allow an understanding of all relevant components (including any alternatives), processes and development stages, and to enable assessment of their environmental effects.

The EES should describe the following aspects of the project, to the extent relevant and practicable:

- An overview of the proponent;
- Contextual information on the project, including its objectives and its relationship to relevant policies, plans and strategies;
- Description of the processes by which the preferred surface and elevated road alignments, horizontal and vertical tunnel alignments, tunnel portal locations and other key components of the project were selected;

- Adequate design specification of all the project components including:
 - Location;
 - Footprint and layout;
 - Technical specifications and proposed development and design capacity, or alternatively concept designs;
 - Methods of construction that could be adopted, including key construction sites and activities;
 - Aspects of the operational phase of the project that could give rise to environmental effects, including with regard to air emissions, noise, vibration, drainage and water management, energy use and greenhouse gas emissions; and
 - Consideration of climate change risk.
- Land use activities within the vicinity of the project area, supported by plans and maps where applicable, including the tenure of land to be acquired for the project;
- Information about the project's expected construction timetabling and staging, temporary occupation of land for construction purposes and anticipated operational arrangements; and
- Other necessary works directly associated with the project, such as road upgrades, infrastructure and services relocation.

4.4. Relevant alternatives

The EES should document the consideration of alternative routes and design concepts and explain selection processes for the preferred project presented and evaluated through the EES. The EES should investigate and document the likely environmental effects of relevant alternatives, particularly where these offer a distinct potential for superior environmental outcomes and are capable of meeting the objectives of the project. In the first instance, the discussion of relevant alternatives should include:

- An explanation of selection processes;
- Identification and evaluation of design alternatives;
- Relevant environmental considerations; and
- Documentation of the basis for the proposed project.

Where appropriate, the assessment of environmental effects of relevant alternatives is to address applicable matters set out in section 5 below.

The depth of investigation of alternatives should be proportionate to their potential to meet project objectives or minimise potential adverse effects.

4.5. Applicable legislation, policies and strategies

The EES will need to identify relevant legislation, policies, guidelines and standards, and assess their specific requirements or implications for the project, particularly in relation to required approvals that may involve legislation referred to in section 3.3.

4.6. Impact evaluation framework

The EES will need to describe the method used to identify and assess environmental effects of the project.

4.7. Consultation

As proponent, DEDJTR is responsible for informing the public and consulting with stakeholders throughout the preparation of the EES in accordance with a suitable 'EES Consultation Plan' (refer to section 3.2.2 of this document).

The EES should document the process and results of the consultation undertaken during the preparation of the EES, including:

- Issues raised and suggestions made by stakeholders or members of the public; and
- The responses to raised issues made by the proponent in the context of the EES studies or the associated consideration of mitigation and management measures.

The EES should also outline a program for community consultation, stakeholder engagement and communications during the construction and operation of the project, including opportunities for local stakeholders to engage with the proponent to seek responses to issues that might arise while the project is being implemented.

4.8. Evaluation objectives

The following evaluation objectives (Table 1) identify desired outcomes in the context of potential project effects. They provide a framework to guide an integrated assessment of environmental effects of the project, in accordance with the Ministerial Guidelines.

In addition the evaluation objectives provide a basis for evaluating the overall implications of the project in the context of key aspects of legislation and statutory policy, as well as the principles and objectives of ecologically sustainable development and environment protection, including net community benefit.

The proponent may propose refinements to the objectives, together with specific assessment criteria, as the EES is prepared.

Table 1. Evaluation objectives

Evaluation Objective	Key legislation
Transport capacity, connectivity and traffic management – <i>To increase transport capacity and improve connectivity to and from the west of Melbourne and, in particular, to increase freight movement via the freeway network instead of local and arterial roads, while adequately managing effects of the works on the existing broader and local transport networks, including road, public transport, cycling and pedestrian transport networks.</i>	RM Act TI Act P&E Act
Built environment – <i>To protect and enhance the function and character of the evolving urban environment including built form and public realm within the immediate and broader context of the project works.</i>	P&E Act
Health, amenity and environmental quality – <i>To minimise adverse air quality, noise and vibration effects on the health and amenity of nearby residents, local communities and road users during both construction and operation of the project.</i>	EP Act P&E Act TI Act PHW Act
Social, business, land use, public safety and infrastructure – <i>To minimise adverse effects on the social fabric of the community, including with regard to community cohesion, access to community services and facilities, business functionality, changes to land use, public safety and access to infrastructure.</i>	EP Act P&E Act TI Act PHW Act
Landscape, visual and recreational values – <i>To minimise adverse effects on landscape, visual amenity and recreational and open space values and to maximise the enhancement of these values where opportunities exist.</i>	P&E Act
Land stability – <i>To avoid or minimise adverse effects on land and river bed or bank geomorphic stability from project activities, including tunnel construction and crossings of the Maribyrnong River, Kororoit Creek, Stony Creek and Moonee Ponds Creek.</i>	P&E Act EP Act Water Act
Hydrology and water quality – <i>To avoid or minimise adverse effects on surface water and groundwater quality and hydrology in particular resulting from the disturbance of contaminated or acid-forming materials, and to maintain functions and values of floodplain environments.</i>	Water Act EP Act CLP Act
Biodiversity – <i>To avoid or minimise adverse effects on native terrestrial, aquatic and inter-tidal flora and fauna, and address opportunities for offsetting potential losses consistent with the relevant policy.</i>	FFG Act Wildlife Act CLP Act
Cultural Heritage – <i>To avoid or minimise adverse effects on Aboriginal and historical cultural heritage values.</i>	AH Act Heritage Act P&E Act
Waste management – <i>To manage excavated spoil and other waste streams generated by the project in accordance with the waste hierarchy and relevant best practice principles.</i>	EP Act
Environmental Management Framework – <i>To provide a transparent framework with clear accountabilities for managing environmental effects and hazards associated with construction and operation phases of the project, in order to achieve acceptable environmental outcomes.</i>	TI Act EP Act EE Act

5. Assessment of specific environmental effects

5.1. Approach to assessment

The following sections set out specific requirements for the assessment of effects, using a standard structure for each evaluation objective:

- **Key issues.** The EES should identify the potentially significant issues or risks that the project poses for each evaluation objective.
- **Describe the existing environment.** This section sets out baseline conditions and existing or predicted trends that will be used to predict effects having regard to their significance and any risk assessment undertaken by the proponent to guide the necessary data gathering for existing condition assessments.
- **Design and mitigation measures.** This section considers and commits to design or other available measures that could substantially avoid, mitigate or manage significant effects and risks.
- **Assessment of likely effects.** This section predicts or estimates potential and residual effects and risks i.e., after design and mitigation measures have been implemented, and evaluates the significance of those effects and risks.
- **Approach to manage performance** This section describes monitoring and contingency measures that are proposed to ensure that effects are controlled if monitoring demonstrates more significant adverse effects than predicted or permitted.

5.2. Transport capacity, connectivity and traffic management

Evaluation objective – *To increase transport capacity and improve connectivity to and from the west of Melbourne, and, in particular, increase freight movement via the freeway network instead of local and arterial roads, while adequately managing the effects of the project on the broader and local road, public transport, cycling and pedestrian transport networks.*

Key Issues

- Contribution to an integrated and sustainable transport system.
- Transport connectivity and capacity to and from the west of Melbourne, including network resilience and redundancy.
- Changes to local and arterial traffic distribution, including in relation to the west and north of Melbourne, the western and northern parts of the Melbourne CBD, and in the vicinity of urban renewal precincts adjacent to the project area.
- Effects of the redistribution of freight and heavy vehicle traffic on the regional and local transport network and implications for residents, residential areas and businesses during construction and operation.
- Disruption to pedestrian movements, bicycle connectivity, public transport, motor vehicle and freight traffic during construction and operation.
- Predicting future travel behaviour and transport trends over time.

Priorities for characterising the existing environment

- Describe both the regional and local transport network context for the project.
- Establish comprehensive baseline data on freight, private motor vehicle, public transport, pedestrian and bicycle movements in areas affected by the project, including along the West Gate Freeway, Footscray Road, CityLink and routes intersecting the proposed alignment, including the existing routes to the Port of Melbourne.

- Describe the elements of the road-based transport system including road, freight, cycling and pedestrian transport networks that might be affected by the project, in particular during the construction phase of the project.
- Undertake predictive modelling of regional and local transport network traffic flows in the absence of the project.

Design and mitigation measures

- Describe the proposed transport network design features and approach to integrate the project with the existing or modified transport network, including any proposed solutions to maintain or enhance pedestrian and bicycle access in the vicinity of the project.
- Describe traffic management tools that could be used to modify travel behaviour on project and local roads such as tolls and truck curfews and bans.
- Describe the transport network changes and any staging proposed to maintain the transport system function during construction of the project, including the proposed nature and duration of diversions, route changes and changes in transport network management and operation including pedestrian and cycle links where these are affected by construction.
- Describe any potential public transport priority treatments, such as signal priority and tram/bus lanes, to minimise adverse traffic impacts, and impacts on other public transport users' journeys including travel to stops and stations.
- Describe the potential routing of spoil transport from tunnelling works and other construction-related truck movements to minimise traffic and amenity impacts.

Assessment of likely effects

- Undertake predictive modelling of regional, local and project transport network traffic flows following implementation of the project.
- Assess the project's positive and negative effects on the existing transport network during construction (including spoil transport) and operation including in relation to:
 - Predicted travel time and vehicle movement outcomes, including at the interchanges with the West Gate Freeway, CityLink, Footscray Road and Port of Melbourne, as well as for other relevant existing roads;
 - Redistribution of traffic, including freight, on regional and local road network;
 - Effects on tram, bus and train movements, including how public users travel to and from stops and stations;
 - Accessibility and safety for pedestrians at road junctions and community facilities;
 - Accessibility and safety for cyclists including on the Federation Trail, Footscray Road shared path, the Moonee Ponds Creek, Kororoit Creek and Maribyrnong River trails and other on-road bike paths;
 - The overall geographic distribution and magnitude of changes to travel times and accessibility for both users of the project and others
 - Consistency with transport and urban plans (e.g., VicRoads SmartRoads hierarchy); and
 - Interactions with other relevant concurrent projects.

Approach to manage performance

- Describe principles or approach to managing transport network conditions during the project's construction, including as part of the Environmental Management Framework (EMF) (see section 5.12).

- Describe principles to be adopted for monitoring traffic capacity and travel times along the project route and connecting roads.
- Describe potential options and actions that could further mitigate adverse effects or optimise the transport system benefits of the project, including for freight movement, if needed.

5.3. Built environment

Evaluation objective – *To protect and enhance the function and character of the evolving urban environment including built form and public realm within the immediate and broader context of the project works.*

Key issues

- Acknowledging, respecting and contributing to the character and integrity of existing built form and public realm in the immediate and broader neighbourhood of the project works.
- Reinforcing, enhancing and/or complementing valued aspects of the existing and evolving urban environment, including nearby urban renewal precincts and other proposed works in the vicinity of the project (such as the Melbourne Metro Rail Project and the Moreland Street, Footscray Road and Shepherd Bridge upgrades).
- The project would represent a significant gateway into Melbourne.

Priorities for characterising the existing environment

- Describe and analyse the character of existing and evolving urban environment.
- Describe any relevant frameworks guiding maintenance, development or redevelopment of built form.

Design and mitigation measures

- Describe measures to be taken to create a positive relationship between the character of existing or evolving urban environment and the design and appearance of the project structures, especially bridges, viaducts, road interchanges, noise walls, lights and tunnel portal and ventilation structures.
- Describe the design and management approach to ensure the project protects and enhances its urban setting, including built form and public realm.
- Describe measures to enhance the experience of people using or in the vicinity of the project.

Assessment of likely effects

- Analyse the effect of the project on the form, function, amenity and appearance of the existing and evolving urban environment and on local and neighbourhood character during construction and operation phases.
- Assess consistency with urban plans.

Approach to manage performance

- Describe the principles to be adopted to ensure that the project's built form continues to integrate over the long term with local character, creates the intended attractive appearance and enhances the public's experience.

5.4. Health, amenity and environmental quality

Evaluation objective – *To minimise adverse air quality, noise and vibration effects on the health and amenity of nearby residents, local communities and road users during both construction and operation of the project.*

Key issues

- Adverse effects on air quality near residential and other sensitive land uses, due to dust or other emissions from construction works.
- The effects on air quality of project operations including tunnel ventilation systems and change in vehicle emissions from altered road and traffic conditions.
- Emissions of noise from project construction and operations, including tunnel ventilation systems and altered road and traffic conditions, adversely affecting amenity of residences or other sensitive land uses.
- Health effects for nearby residents from redistribution of heavy vehicle traffic and altered road and traffic conditions during project operations.
- Opportunities for improvements to neighbourhood amenity and environmental quality through redistribution of heavy vehicle traffic and altered road and traffic conditions.
- Generation of airborne or ground borne vibrations and regenerated noise from construction and operation that could adversely affect residential amenity, heritage values or other property assets or infrastructure.

Priorities for characterising the existing environment

- Identify residences and other sensitive land uses, including nearby urban renewal precincts, community facilities, parklands and open spaces that may be vulnerable to changes in air quality and noise environments from the project.
- Identify residences, other sensitive land uses, property assets or infrastructure that may be vulnerable to ground vibration from construction activities.
- Collect local air quality data to compare to long-term urban data sets.
- Collect local noise and vibration data.
- Characterise existing local background air quality conditions and trends relative to relevant State Environment Protection Policy (SEPP) standards, including known factors that may lead to local exceedances.
- Characterise existing local background noise conditions and trends relative to relevant standards, including known factors that may lead to local exceedances.
- Describe ground conditions that may influence the transmission of vibrations and regenerated noise from construction works and road tunnel operations.

Design and mitigation measures

- Describe siting and design measures to minimise air quality and noise effects during operation, including on existing and future residential areas in the vicinity of new elevated and surface roads, tunnel ventilation systems, the West Gate Freeway widening works and any other roads where traffic levels are predicted to significantly increase due to the project's operation.
- Propose siting, design, mitigation and management measures to prevent or control emissions of dust or other air pollutants and noise from construction works sites.
- Propose design and management measures to control vibrations resulting from construction works and road tunnel operations to acceptable levels.

Assessment of likely effects

- Analyse risk of exceeding relevant air quality standards resulting from the project both in isolation and in addition to background levels of air pollutants and assess implications for human health.
- Analyse potential for relevant noise standards to be exceeded, with respect to timing, durations, localities, degree of potential exceedance and any relevant special noise characteristics (e.g. tonality, impulsiveness).
- Analyse potential for vibration to cause disturbance to occupants of residential buildings or other sensitive land uses or cause adverse effects on property and infrastructure (see also section 5.10 below for potential effects of vibration on cultural heritage values).
- Evaluate any improvements to air quality and noise conditions for nearby residents and local communities and implications for human health.

Approach to manage performance

- Describe the principles of monitoring programs for air quality, noise and vibration, both during construction works and for project operations.
- Describe the principles for contingency measures to prevent or control emissions or vibrations if monitoring demonstrates more significant adverse effects than predicted or permitted.

5.5. Social, business, land use, public safety and infrastructure

Evaluation objective – *To minimise adverse effects on the social fabric of the community, including with regard to community cohesion, access to community services and facilities, business functionality, changes to land use, public safety and access to infrastructure.*

Key issues

- Maintenance of community linkages and social cohesion within the immediate vicinity of proposed works and the broader area.
- Changed accessibility for residents, including to community services or facilities resulting from construction works or from operation of the project.
- Support for employment opportunities in industrial precincts in Melbourne's west.
- Potential effects on functionality of individual businesses and commercial precincts resulting from changed access arrangements and other project effects.
- Effects on businesses including freight transport and logistics supply chain.
- Acquisitions of private property and temporary disruption and displacement of existing land use activities and infrastructure for project purposes.
- The compatibility of the proposal with existing land uses in the vicinity of the project area and the likely opportunities and constraints resulting from the project for future land use, including planned urban renewal precincts.
- Potential for the project to stimulate changes in land use such as in the CBD or in the outer west of Melbourne.
- Public safety risks associated with construction and operation of the project.
- Potential relocation of, or hazards to, key electricity transmission, water, drainage, sewerage, telecommunications or other public infrastructure assets due to construction activities (see also section 5.7 below).

Priorities for characterising the existing environment

- Describe the communities that may be affected by the project, and characterise the community values that are threatened e.g., community service facilities used by community members and intangible elements, such as values shared by particular groups.
- Describe individual businesses or business precincts that could be affected temporarily or permanently by project activities.
- Undertake predictive modelling of freight transport costs in the absence of the project.
- Describe the land that may be required permanently or temporarily for the delivery of the project, including its current uses and sensitivities.
- Describe in broad terms current and proposed future land uses or land use objectives for required and nearby land that may be affected temporarily or permanently by project activities, including the Port of Melbourne and industrial land west of the Maribyrnong River, and North and South Dynon, E-gate, Arden Macaulay and Docklands urban renewal precincts.
- Describe potential hazards for public safety during construction and operation including to road and public transport users, cyclists and pedestrians.
- Describe proximity of the project and work sites to major hazard facilities, sensitive receptors and associated buffers.
- Describe the infrastructure, networks and other elements that provide for connectivity within and between communities, including walking and cycling routes, and detail the extent to which features may be disrupted or additionally loaded due to project works or activities.

Design and mitigation measures

- Describe measures to maintain community linkages or replace linkages that may be disrupted by the project.
- Describe the approach to be taken to enable or assist businesses that may be adversely affected by the project, whether temporarily or permanently, to maintain business continuity.
- Describe processes to be applied to gain access to land required for the project, including the approach to compensation and managing adverse effects for landowners and occupiers.
- Describe the approach to provide alternative access to properties for which existing access may be disrupted by the project.
- Describe design and management measures to ensure the project protects public safety during construction and operation phases.
- Describe the approach to relocation of, or managing hazards posed to, key electricity transmission, water, drainage, sewerage, telecommunications or other public infrastructure assets to manage effects from construction activities.

Assessment of likely effects

- Analyse the residual effects on communities and community cohesion, categorising the severity of residual effects.
- Analyse indirect temporary and permanent effects that might result from the project (e.g. on catchments for community facilities) and propose measures for addressing such effects.
- Analyse effects on businesses and business precincts, especially with respect to management of routine operations and business viability including freight transport.
- Evaluate the consistency of the project with the policies and provisions of the Melbourne, Hobsons Bay, Maribyrnong and Wyndham planning schemes and other relevant land use planning strategies.

- Analyse the effects of temporary and longer-term land use changes resulting from the project.
- Assess any residual public safety risks from project construction or operation, particularly in regards to nearby major hazard facilities, spoil management and traffic management.
- Describe residual effects on key electricity transmission, water, drainage, sewerage, telecommunications or other public infrastructure assets.
- Describe any benefits for social cohesion, business, land use, public safety or infrastructure from the project.

Approach to manage performance

- Describe principles to be adopted to track actual social, business, land use, public safety and infrastructure effects relative to predicted effects, including proposed trigger levels for initiating contingency actions. Outline potential contingency actions.

5.6. Landscape, visual and recreational values

Evaluation objective – *To minimise adverse effects on landscape, visual amenity and recreational and open space values and to maximise the enhancement of these values where opportunities exist.*

Key Issues

- Potential adverse effects on valued urban landscapes and views during the day and night (e.g., light spill) resulting from construction phase works and operations.
- Potential temporary or permanent effects on public open space areas, affecting access to or enjoyment of recreational opportunities and environmental values, in particular, Westgate Public Golf Course, Hyde Street Reserve/Stony Creek Park, McIvor Reserve and Donald McLean Reserve, Yarraville Gardens and the Maribyrnong River, Moonee Ponds Creek, Stony Creek and Kororoit Creek corridors.
- Presence of restored environments and opportunities for future restoration of public open space areas.

Priorities for characterising the existing environment

- Identify key visual and landscape features, values and viewing points in the area or broader vicinity of proposed project works.
- Identify condition and uses of existing and planned public open space and recreational facilities that could be occupied or otherwise adversely affected by project construction and operation.

Design and mitigation measures

- Describe design, management or offset measures to avoid or minimise adverse effects on landscape character and visual and environmental values, especially with regard to long-term effects.
- Describe project design, management or offset measures to avoid or minimise adverse effects on open space, recreational and environmental values resulting from the project, including during construction, and any opportunities for recreational uses to be redirected to alternative sites.

Assessment of likely effects

- Assess likely extent and duration of residual adverse effects on or improvements to landscape and visual values, including use of photo-montages or other suitable methods for depicting predicted landscape changes from key viewing points.
- Identify and assess likely residual effects on use and enjoyment of open space and recreational activities, including with regard to public land to be used or occupied for project works.

Approach to manage performance

- Describe principles for monitoring adverse effects on landscape, environmental and visual values and identify potential contingency measures.
- Describe the principles for monitoring effects on open space and recreational activities and the effectiveness of mitigation measures.

5.7. Land stability

Evaluation objective – *To avoid or minimise adverse effects on land and river bed or bank geomorphic stability from project activities, including tunnel construction and crossings of the Maribyrnong River, Kororoit Creek, Stony Creek and Moonee Ponds Creek.*

Key issues

- Potential for project works to cause or lead to reduced ground stability and riverbed or bank erosion that could adversely affect properties, structures, infrastructure, river health or other values.

Priorities for characterising the existing environment

- Identify and map ground conditions along and in the vicinity of the project alignment.
- Identify ground conditions that may be susceptible to instability from proposed project activities e.g., tunnelling, deep excavation, dewatering and changes to vegetative cover (such as from increased shading by elevated structures).
- Identify properties, assets and infrastructure that may be susceptible to land instability.
- Identify geomorphic conditions in the vicinity of waterway crossings.

Design and mitigation measures

- Identify design and management measures to maintain ground stability where risks of potential instability have been identified.

Assessment of likely effects

- Assess residual effects on land stability, such as riverbank erosion, from project works.

Approach to manage performance

- Describe principles to be adopted for monitoring programs to identify ground instability and river bed or bank erosion if it occurs during project works, including post construction.
- Describe principles of potential contingency actions if ground instability is identified.

5.8. Hydrology and water quality

Evaluation objective – *To avoid or minimise adverse effects on surface water and groundwater quality and hydrology in particular resulting from the disturbance of contaminated or acid-forming materials, and to maintain functions and values of floodplain environments.*

Key Issues

- Potential for project works to affect waterways and hydrology, including with respect to flooding.
- Potential for contaminated run-off or other water, including groundwater, to be discharged into surface waters or groundwater environments.
- Potential for disturbance of anthropogenic contaminated soil or groundwater or naturally occurring acid sulphate soils.

Priorities for characterising the existing environment

- Identify and map the natural and constructed surface water drainage system relevant to the geographic coverage of project works.
- Identify existing key surface water quality and stream condition parameters and trends.
- Identify existing groundwater conditions (including declared Groundwater, Quality, Restricted Use Zones) and characteristics within the general area that might be affected by project works.
- Identify known and potentially contaminated sites and ground conditions indicative of acid sulphate soils. See also section 5.11 regarding contaminated or acid sulphate soil identification and management.

Design and mitigation measures

- Describe measures to avoid or mitigate project effects on waterways and flood behaviour and management.
- Describe measures to protect surface water quality, especially during the construction phase, in the light of relevant SEPP objectives and other relevant standards and guidelines.
- Describe measures to protect groundwater and aquifers, including with respect to the potential effects of constructing and operating the road tunnel.

Assessment of likely effects

- Assess residual effects on waterways and hydrology, including with respect to flood behaviour and management.
- Assess residual effects on water quality in receiving waters, having regard to existing water quality conditions, proposed mitigation measures and relevant SEPP standards.
- Assess residual effects on short-term or longer-term changes to groundwater conditions, with particular regard to ground subsidence, tunnel drainage, groundwater quality, relevant SEPP standards and beneficial uses.
- Assess residual effects on surface and ground water users or environmental values from contaminated soil, acid sulphate soils or contaminated groundwater.

Approach to manage performance

- Describe principles for programs for monitoring any flooding events during construction, surface water and groundwater quality and groundwater levels.
- Describe contingency measure principles if unexpected adverse effects are identified.

5.9. Biodiversity

Evaluation objective – *To avoid or minimise adverse effects on native terrestrial, aquatic and inter-tidal flora and fauna, and address opportunities for offsetting potential losses consistent with the relevant policy.*

Key Issues

- Construction activity, particularly within the Maribyrnong River and the Kororoit Creek, Stony Creek and Moonee Ponds Creek corridors could potentially affect riparian and in-stream environments.
- Proximity of works to remnant coastal saltmarsh and mangrove vegetation communities.
- New elevated structures reducing light and rain incidence on areas below affecting terrestrial, riparian and aquatic vegetation.
- Use of existing planted vegetation or other landscape elements as habitat by native terrestrial fauna.

Priorities for characterising the existing environment

- Identify and describe existing terrestrial, aquatic and inter-tidal flora and fauna that could be affected by project works, especially species and communities listed as threatened under the FFG Act or on DELWP advisory lists.
- Identify and describe remnant or planted native vegetation and fauna habitat that could be affected by project works.

Design and mitigation measures

- Propose measures to protect terrestrial and aquatic flora and fauna values.
- Describe any measures to offset identified adverse effects on flora and fauna values.

Assessment of likely effects

- In the context of the project's urban and highly modified setting, assess the potential adverse residual effects of the project on biodiversity values.

Approach to manage performance

- Describe principles to be adopted to develop monitoring programs to measure adverse effects on significant flora and fauna values resulting from the project.
- Describe the approach to develop contingency measures to be implemented in the event of adverse residual effects on flora and fauna values requiring further management.

5.10. Cultural heritage

Evaluation objective – *To avoid or minimise adverse effects on Aboriginal and historical cultural heritage values.*

Key Issues

- Potential adverse effects on Aboriginal cultural heritage values.
- Preparation of a Cultural Heritage Management Plan (CHMP) under the *Aboriginal Heritage Act 2006*.
- Potential adverse effects on historical cultural heritage values, especially buildings, properties, archaeological sites and precincts identified through statutory instruments.

Priorities for characterising the existing environment

- Identify Aboriginal cultural heritage sites and values that could be affected by the project.
- Identify areas of Aboriginal cultural heritage sensitivity relevant to the project.
- Identify potentially affected sites or precincts on the Victorian Heritage Register, on Heritage Overlays in relevant planning schemes or otherwise documented as being of heritage significance.
- Investigate the condition and sensitivity of identified sites and precincts.

Design and mitigation measures

- Describe design, management (e.g., site investigation, recording and salvage) or site protection measures that could avoid or mitigate potential adverse effects on known or potential Aboriginal cultural heritage or historical cultural heritage values, especially with regard to project construction.

Assessment of likely effects

- Assess effects of the project on identified or potential sites or places of Aboriginal cultural heritage, with due regard for relative levels of significance and possible impact pathways.
- Assess effects of the project on identified or potential sites of historical cultural heritage significance, with due regard for degree of significance and possible impact pathways.

Approach to manage performance

- Describe the principles for ensuring implementation of the CHMP.
- Describe the principles for monitoring, recording and reporting any effects on places of historical heritage significance.

5.11. Waste management

Evaluation objective – *To manage excavated spoil and other waste streams generated by the project in accordance with the waste hierarchy and relevant best practice principles.*

Key Issues

- Management of substantial quantities of excavation and tunnelling spoil, including temporary stockpiling and on-site treatment, transporting material away from works sites and reuse or disposal.
- Management of a range of waste streams from the project.

Priorities for characterising the existing environment

- Identify likely occurrence of acid sulphate soils, contaminated soil, and other potential sources of contaminated materials in the project area and their approximate location.
- Identify volumes and characteristics of excavated spoil.
- Characterise other key waste streams from the project.
- Identify suitable off-site disposal options for waste materials.
- Identify possible capacity issues that could affect either the management of waste on-site or disposal off-site, particularly given other proposed works (such as the Melbourne Metro Rail Project) that will also be generating spoil.

Design and mitigation measures

- Identify options for treating, reusing or disposing of excavation spoil with reference to the waste hierarchy and relevant best practice principles, including for both contaminated and clean materials, and identify the routes and destinations for spoil material to be transported away from the project work sites.
- Describe and evaluate proposed design, management or site protection measures that could avoid or mitigate potential adverse effects of the excavated spoil or other waste streams generated by the project on land or water values, especially with regard to the project construction activities.

Assessment of likely effects

- Analyse residual effects on land and water values from project waste streams.

Approach to manage performance

- Describe principles to be adopted for monitoring management of spoil and other waste streams.

5.12. Environmental Management Framework

Evaluation objective – *To provide a transparent framework with clear accountabilities for managing environmental effects and hazards associated with construction and operation phases of the project, in order to achieve acceptable environmental outcomes.*

Key Issues

- Inadequate management of environmental effects and delivery of environmental benefits during project construction and operation could result in a failure to meet statutory requirements or sustain stakeholder confidence

Priorities for characterising the existing environment

- Outline the means by which a register of environmental effects and risks associated with the project will be developed and maintained during project implementation (including matters identified in preceding sections in these Scoping Requirements and other relevant risks).

Design and mitigation measures

- Provide the environmental commitments and obligations, and relevant associated standards.
- Provide a proposed EMF for managing actual and potential adverse environmental effects and for delivery environmental benefits, including:
 - The environmental management system (EMS) to be adopted, including organisational responsibilities and accountabilities
 - The context of required approvals and consents, in particular, anticipated requirements for any related environmental management plans (EMPs), whether for project precincts or project phases or other relevant project elements
 - Environmental management measures proposed in the EES to address specific issues, including commitments to mitigate adverse effects and enhance environmental outcomes with regard to intervals and duration of effects and sensitivity of the potentially affected communities, built form and neighbourhood character
 - Proposed objectives, indicators and monitoring requirements, including for managing effects on:
 - Traffic, cycling and pedestrian access
 - Built form, with respect to local character
 - Amenity and health, including air quality, noise and vibration
 - Social cohesion and community
 - Businesses and business precincts
 - Land use
 - Public safety
 - Public infrastructure
 - Landscape, visual and recreational values
 - Land stability and soils
 - Surface water quality, groundwater quality and surface water flow and groundwater regimes
 - Biodiversity values
 - Aboriginal and historical cultural heritage
 - The environment from project waste streams and hazardous materials
 - Energy use and greenhouse gas emissions.

Assessment of likely effects

- Evaluate the likely effectiveness of the proposed EMF in controlling adverse effects and supporting beneficial environmental outcomes.

Approach to manage performance

- Develop procedures for:
 - Verifying or monitoring environmental performance and compliance with requirements
 - Triggering contingency measures, as necessary
 - Reviewing the effectiveness of the EMF for compliance and continuous improvement
 - Communication issues in implementing management measures to relevant stakeholders.
- Describe arrangements for managing and accessing baseline and monitoring data, to ensure the transparency and accountability of the EMF and to contribute to a legacy of improvement of environmental knowledge.

Appendix A

Minister's procedures and requirements under section 3(3) of the *Environment Effects Act 1978*

The following procedures and requirements under the guidelines are to apply to the Environment Effects Statement (EES) for the works.

- (i) The EES is to document investigations of potential environmental effects of the proposed works, including the feasibility of design alternatives and associated environmental mitigation and management measures, in particular for:
 - a. potential effects of construction works on noise, dust and vibration levels, and hydrology and quality of groundwater and surface water;
 - b. potential effects arising from disturbance of contaminated soils or groundwater, acid sulfate soils or geophysical conditions, including risks related to land and river bank or bed stability;
 - c. potential effects on amenity and environmental quality of the adjacent residential areas from the works' operation, in particular air emissions from the proposed ventilation stacks and increased noise levels;
 - d. potential effects on visual, landscape and recreational values of areas in the vicinity of the proposed works;
 - e. potential effects on native vegetation and biodiversity, in particular listed flora and fauna species and communities;
 - f. potential effects on Aboriginal and cultural heritage values;
 - g. potential effects on existing land uses, (including Crown Land) and community and business activities, including with respect to acquisitions, services, connectivity and social impacts;
 - h. potential temporary and permanent effects on transport network and services, both for residents and businesses located in the vicinity of the proposed and related works and for the broader community; and
 - i. other effects on land uses and the community.
- (ii) The matters to be investigated and documented in the EES will be set out more fully in scoping requirements. Draft scoping requirements will be exhibited for 15 business days for public comment, before final scoping requirements are endorsed by the Minister for Planning.
- (iii) The proponent may prepare and submit to the Department of Environment, Land, Water and Planning (DELWP) a draft EES study program to inform the preparation of scoping requirements.
- (iv) The level of detail of investigation for the EES studies should be consistent with the approach set out in the scoping requirements and be adequate to inform an assessment of the significance and acceptability of the potential environmental effects, in the context of the guidelines.
- (v) DELWP will convene an inter-agency Technical Reference Group (TRG) to advise the Department and the proponent, as appropriate, during the preparation of the EES on the scoping requirements, the design and adequacy of the EES studies, and coordination with statutory approval processes.
- (vi) The proponent is to prepare and implement an EES Consultation Plan for informing the public and consulting with stakeholders during the preparation of the EES, having regard to advice from DELWP and the TRG.
- (vii) The proponent is also to prepare and submit to DELWP its proposed schedule for the completion of studies, preparation and exhibition of the EES, which may be amended following endorsement of the scoping requirements. This schedule is intended to facilitate the alignment of the proponent's and

DELWP's timeframes, including for TRG review of technical studies for the EES and the main EES documentation.

- (viii) The proponent is to apply appropriate peer review where necessary and quality management procedures to enable the completion of EES studies to a satisfactory standard.
- (ix) The EES is to be exhibited for a period of 30 business days for public comment, unless the exhibition period spans the Christmas–New Year period, in which case 40 business days will apply.
- (x) An inquiry will be appointed under the Environment Effects Act 1978 to consider environmental effects of the proposal.