**Environment Effects Act 1978** 

# **SCOPING REQUIREMENTS**

For

# **MORDIALLOC BYPASS**

# **ENVIRONMENT EFFECTS STATEMENT**

May 2018



## For further information:

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Queries about the EES process and the Scoping Requirements should be directed to DELWP Impact Assessment Unit: Telephone: 03 8392 5477

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#### List of abbreviations

ii

AH Act	Aboriginal Heritage Act 2006
C&LP Act	Catchment and Land Protection Act 1994
CF&L Act	Conservation, Forests and Lands Act 1987
CHMP	Cultural Heritage Management Plan
Cth	Commonwealth
DELWP	Department of Environment, Land, Water and Planning
EE Act	Environment Effects Act 1978
EES	Environment Effects Statement
EMF	Environmental Management Framework
EMS	Environmental Management System
EP Act	Environment Protection Act 1970
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)
FFG Act	Flora and Fauna Guarantee Act 1988
GDE	Groundwater dependent ecosystem
km	kilometre
m	metre
MNES	Matters of national environmental significance
PASS	Potential acid sulphate soils
P&E Act	Planning and Environment Act 1987
PH&W Act	Publi Health and Wellbeing Act 2008
RM Act	Road Management Act 2004
SEPP	State Environment Protection Policy
TI Act	Transport Integration Act 2010
TRG	Technical Reference Group

## TABLE OF CONTENTS

1	IN	ITRODUCTION	1
	1.1 1.2	THE PROJECT AND SETTING MINISTER'S REQUIREMENTS FOR THIS EES	
2	A	SSESSMENT PROCESS AND REQUIRED APPROVALS	4
	2.1 2.2 2.3	WHAT IS AN EES? THE EES PROCESS ACCREDITATION OF THE EES PROCESS UNDER THE EPBC ACT	4 6
3	M	ATTERS TO BE ADDRESSED IN THE EES	7
4	3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8	GENERAL APPROACH GENERAL CONTENT AND STYLE OF THE EES PROJECT DESCRIPTION PROJECT ALTERNATIVES APPLICABLE LEGISLATION, POLICIES AND STRATEGIES CONSULTATION DRAFT EVALUATION OBJECTIVES ENVIRONMENTAL MANAGEMENT FRAMEWORK SSESSMENT OF SPECIFIC ENVIRONMENTAL EFFECTS	7 8 9 9 10 10 11
4			
	4.1 4.2 4.3 4.4 4.5 4.6	BIODIVERSITY	16 18 19 20
5	E	NVIRONMENTAL MANAGEMENT FRAMEWORK	22

## 1 Introduction

In the light of the potential for significant environmental effects, on 13 September 2017 the Victorian Minister for Planning (the Minister) determined under the *Environment Effects Act 1978* (EE Act) that VicRoads (the proponent) is to prepare an environment effects statement (EES) for the Mordialloc Bypass project (the project<sup>1</sup>). The purpose of the EES is to provide a sufficiently detailed description of the proposed project, assess its potential effects on the environment<sup>2</sup> and assess alternative project layouts, designs and approaches to avoid and mitigate effects. The EES will inform and seek feedback from the public and stakeholders and enable the Minister to issue an assessment of the environmental effects of the project under the EE Act at the conclusion of the process. The Minister's assessment will then inform statutory decision-makers responsible for the project's approvals.

The *Scoping Requirements for the Mordialloc Bypass* (Scoping Requirements) set out the specific matters to be investigated and documented in the EES for the project. The Minister has issued the Scoping Requirements in consideration of public comments received on draft Scoping Requirements.

## 1.1 The project and setting

The proponent proposes to develop a new freeway in south-eastern Melbourne connecting the Dingley Bypass (between Boundary and Tootal Roads) with the northern end of the Mornington Peninsula Freeway at Springvale Road (Figure 1). The project passes between the western boundary of Braeside Park and the eastern boundary of the Woodlands Estate (constructed) wetlands, traverses constructed wetlands at Waterways and approaches to within a kilometre of the Ramsar-listed Edithvale wetlands. The northern and southern ends of the project pass through or border the South East Green Wedge.

The project corridor is approximately 9.7 km long. Within the corridor, two two-lane 7.5 km long carriageways (with a path for walking and cycling) are proposed by VicRoads along a greenfield alignment, with a further 2.2 km of roadworks required to integrate the project with the Mornington Peninsula Freeway. Grade-separated interchanges will be constructed at the Mornington Peninsula Freeway and Springvale Road intersection, and to connect the new freeway with Governor Road, Lower Dandenong Road and Centre Dandenong Road. An upgraded interchange will also be constructed to connect the Mornington Peninsula Freeway to Thames Promenade. An overpass will be built to traverse old Dandenong Road. Twin bridges approximately 400 m long will be constructed to traverse wetlands at Waterways and Mordialloc Creek and adjacent drainage lines.

The proposed alignment is generally located within the existing road reservation, most of which is already covered by public acquisition overlay, and some of which is already in VicRoads' ownership.

## 1.2 Minister's requirements for this EES

The Minister's decision to require an EES included the procedures and requirements applicable to its preparation, in accordance with section 8B(5) of the EE Act. These requirements included the following key matters for the EES to examine:

• potential effects on biodiversity values, including through direct or indirect loss, degradation or fragmentation of habitat or through other causes including road-kill, as well as related ecological effects;

<sup>&</sup>lt;sup>1</sup>Under the EPBC Act, projects are considered as "actions". For the purposes of this document the term "project" also means "the action".

<sup>&</sup>lt;sup>2</sup>For the purpose of assessment of environmental effects under the EE Act, the meaning of 'environment' includes physical, biological, heritage, cultural, social, health, safety and economic aspects (*Ministerial Guidelines*, p. 2).

- potential effects on water environments and related beneficial uses, including as a result of changes to hydrology and groundwater;
- potential effects resulting from disturbance or mobilisation of anthropogenic soil contaminants or potential acid sulfate soils;
- potential effects on Indigenous cultural heritage values; and
- other effects on land uses and the local communities.

The Scoping Requirements provide further detail on the specific matters to be investigated in the EES in the context of *Ministerial guidelines for assessment of environmental effects under the EE Act 1978* (Ministerial Guidelines).

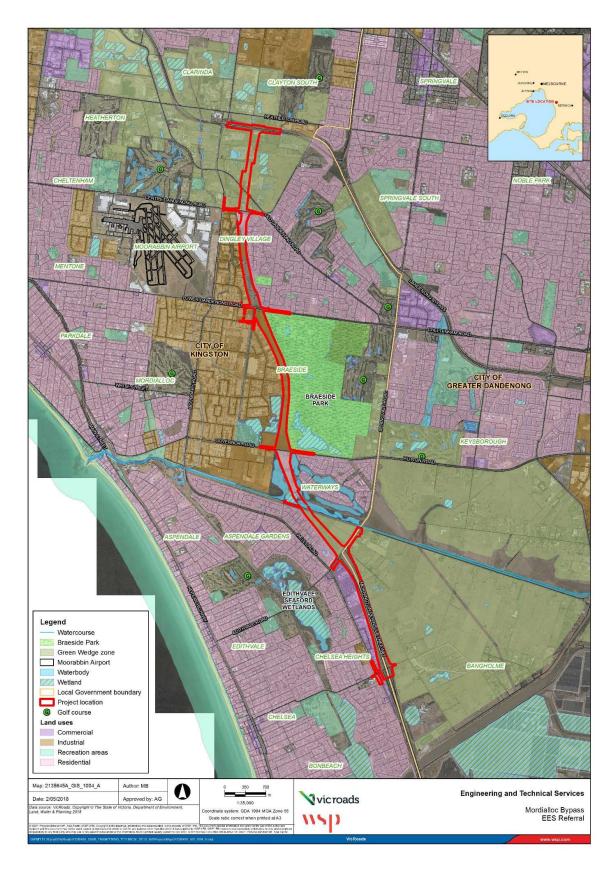


Figure 1: Location of the project (source: VicRoads, per WSP, 2018).

## 2 Assessment process and required approvals

## 2.1 What is an EES?

An EES is prepared by the project's proponent to describe the project and its potential environmental effects. An EES should enable stakeholders and decision-makers to understand how the project is proposed to be implemented and the likely environmental effects of doing so. An EES has two main components.

- The EES main report An integrated, plain-English document that sets out an analysis of the potential impacts of the project. The main report draws on technical studies, data and statutory requirements such as specific limits for surface water and groundwater quality and waste discharge to the environment. The main report should clearly identify which components of the scope are being addressed throughout.
- 2. The technical reports Discipline-based studies that inform expert investigations and analyses that provide the basis for the EES main report. They will be exhibited in full, as appendices to the main report.

The potential impacts that require technical studies are set out in Section 4 of this document.

## 2.2 The EES process

The proponent is responsible for preparing the EES, including conducting technical studies and undertaking stakeholder consultation. The Department of Environment, Land, Water and Planning (DELWP) is responsible for managing the EES process. This EES process has the following steps:

- preparation of a draft study program and draft schedule by the proponent (completed);
- preparation and exhibition of draft Scoping Requirements by DELWP on behalf of the Minister (completed);
- finalisation and issuing of Scoping Requirements by the Minister, having considered public comments received during the advertised exhibition period (completed);
- review of the proponent's EES studies and draft documentation by DELWP and a technical reference group (TRG)<sup>3</sup>;
- completion of the EES by the proponent;
- review of the complete EES by DELWP to establish its adequacy for public exhibition;
- exhibition of the proponent's EES and invitation for public comment by DELWP on behalf of the Minister;
- appointment of an inquiry by the Minister to review the EES and public submissions received, conduct public hearings and provide a report to the Minister; and finally
- following receipt of the inquiry report, the Minister provides an assessment of the environmental effects of the project to inform decision-makers.

Further information on the EES process can be found on DELWP's website<sup>4</sup>.

#### Technical reference group

DELWP has convened a TRG, comprising representatives of relevant state and local government departments, agencies and authorities to advise it and the proponent on:

- applicable policies, strategies and statutory provisions;
- the scoping requirements for the EES;
- the design and adequacy of technical studies for the EES;
- the proponent's public information and stakeholder consultation program for the EES;
- responses to issues arising from the EES investigations;

<sup>&</sup>lt;sup>3</sup>For critical components of the EES studies, peer review by an external, independent expert may be appropriate. <sup>4</sup><u>www.delwp.vic.gov.au/environment-assessment</u>.

- the technical adequacy of draft EES documentation; and
- coordination of statutory processes.

#### Consultation

The proponent is responsible for informing and engaging the public and stakeholders to identify and respond to their issues in conjunction with the EES studies. Stakeholders include potentially affected parties, the local community and interested organisations and individuals, as well as government bodies. Under its EES consultation plan the proponent informs the public and stakeholders about the progress of the EES and associated investigations and provides opportunities for input and engagement during the EES investigations. The consultation plan is reviewed and amended in consultation with DELWP and the TRG before it is published on the DELWP website. The final plan will:

- identify stakeholders;
- characterise public and stakeholders' interests, concerns and consultation needs and potential to provide local knowledge and inputs;
- describe consultation methods and schedule; and
- outline how public and stakeholder inputs will be recorded and considered and/or addressed in the preparation of the EES.

#### Approvals coordination with the EES process

The project may require a range of approvals under Victorian legislation. DELWP coordinates the EES process as closely as practicable with relevant approvals procedural, consultation and public notice requirements. Figure 2 outlines the steps in the EES process and the parallel coordination of statutory processes.

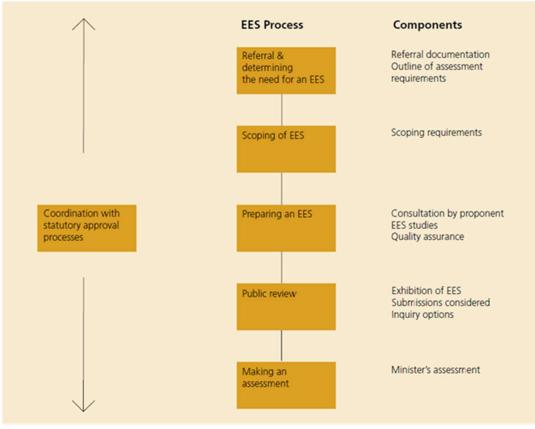


Figure 2: Coordination of statutory assessment and approvals processes.

## 2.3 Accreditation of the EES process under the EPBC Act

The project was also referred to the Australian Government under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The delegate for the Commonwealth Minister for the Environment and Energy determined on 30 January 2018 that the project is a 'controlled action', as it is likely to have a significant effect on the following matters of national environmental significance (MNES), which are protected under Part 3 of the EPBC Act:

- Ramsar wetlands (sections 16 and 17B);
- listed threatened species and communities (sections 18 and 18A); and
- listed migratory species (sections 20 and 20A)<sup>5</sup>.

This EES is an accredited assessment process under the EPBC Act through a Bilateral Assessment Agreement that exists between the Commonwealth and State of Victoria. The Commonwealth Minister or delegate will decide whether the project is approved, approved with conditions or refused under the EPBC Act, after having considered the Minister for Planning's assessment under the EE Act. Note that what are generally termed 'effects' in the EES process correspond to 'impacts' defined in section 82 of the EPBC Act.

Conclusions regarding the above MNES protected under the EPBC Act should be summarised in a separate chapter/section of the EES and include reference information as to where within the document the detailed discussion is provided.

<sup>&</sup>lt;sup>5</sup> See Appendix B.

## 3 Matters to be addressed in the EES

## 3.1 General approach

The EES should assess the environmental effects<sup>6</sup> arising from all components and stages of the project. The assessment should include:

- the potential effects on individual environmental assets magnitude, extent and duration of change in the values of each environmental asset – having regard to intended avoidance and mitigation measures;
- the likelihood of adverse effects and associated uncertainty of available predictions or estimates, including scientific modeling;
- further management measures that are proposed where avoidance and mitigation measures do not adequately address effects on environmental assets, including specific details of how management measures address relevant policies;
- the likely residual effects, including on relevant MNES, that are likely to occur after all proposed measures to avoid and mitigate environmental effects are implemented;
- potential cumulative impacts (including but not limited to concurrent level crossing removals at Edithvale and Bonbeach railway stations); and
- an analysis on the acceptability of effects on all MNES.

Further advice on the approach to be adopted in preparing the EES is provided in Section 4.

## 3.2 General content and style of the EES

The content of the EES and related investigations is to be guided by the Scoping Requirements and the Ministerial Guidelines. To facilitate decisions on required approvals, the EES should address statutory requirements associated with approvals that will be informed by the Minister's Assessment, including relevant decision-making under the EPBC Act. The EES should also address any other significant issues that emerge during the investigations.

Ultimately it is the proponent's responsibility to ensure that adequate studies are undertaken and reported to support the assessment of environmental effects and that the EES has effective internal quality assurance in place. Close consultation 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.

The main EES report should provide a clear, objective, well-integrated analysis of the potential effects of the proposed project, including proposed avoidance, mitigation and management measures, as well as relevant alternatives. Overall, the main report should include the following, with reference to the best available relevant published information:

- an executive summary of the potential environmental effects of the project, including potential effects on identified MNES outlined in section 4;
- a description of the entire project, including its objectives, rationale, key elements, associated requirements for new infrastructure and use of existing infrastructure;
- a description of relevant alternatives capable of substantially meeting the project's objectives that may also offer environmental or other benefits (as well as the basis for the choice where a preferred alternative is nominated);
- a description of the approvals required for the project to proceed, and its relationship to relevant policies, strategies, guidelines and standards;
- descriptions of the existing environment, where this is relevant to the assessment of potential effects;

<sup>&</sup>lt;sup>6</sup>Effects include direct, indirect, combined, consequential, short and long-term, beneficial and adverse effects.

- relevant maps, plans, diagrams and technical information maps and diagrams must be clearly annotated, in colour and high resolution, and relevant features including EPBC matters clearly labelled;
- appropriately detailed assessments of potential effects of the project (and relevant alternatives) on environmental assets and values, relative to the "no project" scenario, together with an estimation of likelihood and degree of uncertainty and irreversibility associated with predictions;
- intended measures for avoiding, minimising, managing and monitoring effects, including a statement of commitment to implement these measures;
- predictions of residual effects of the project assuming implementation of proposed environmental management measures;
- any proposed offset measures where avoidance and mitigation measures will not adequately address effects on environmental values, including the identified MNES, and discussion of how any offset package proposed meets the requirements of the *EPBC Act Environmental Offsets Policy* as it relates to MNES;
- responses to issues raised through public and stakeholder consultation;
- evaluation of the implications of the project and relevant alternatives for the implementation of applicable legislation and policy, including the principles and objectives of ecologically sustainable development and environmental protection;
- a description of the environmental performance regime and environmental history of the proponent, including relevant experience in delivering and operating similar projects, as well as the organisation's health, safety and environmental policies; and
- references or other descriptive detail (noting the production date of information relied upon).

The proponent must also prepare a concise non-technical summary (hard copy A4) for free distribution to interested parties. The EES summary document should include details of the EES exhibition, public submission process and availability of the EES documentation.

The documentation should avoid passive language as far as possible and use active, clear commitments (e.g. 'must' and 'will') where appropriate.

### 3.3 **Project description**

The EES must describe the project in sufficient detail, both to allow an understanding of all components, processes and development stages, and to enable assessment of their likely potential environmental effects. The project description should canvass the following.

- An overview of the proponent, including relevant experience in developing and operating projects as well as its health, safety and environmental policies.
- Contextual information on the project, including its objectives and rationale, its relationship to relevant statutory policies, plans and strategies (if relevant), the basis for selecting the proposed project corridor and implications of the project not proceeding.
- Land use activities (including beneficial and sensitive uses) in the project area and vicinity, supported by plans and maps where applicable.
- Details of all the project components, to the extent practicable, including:
  - location, footprint, layout and access arrangements during site establishment, construction and operation;
  - design and expected construction staging and scheduling;
  - proposed construction methods (to the extent relevant and practicable), temporary occupation of land, extent of areas to be disturbed during construction and infrastructure and service relocation;
  - solid waste, wastewater and hazardous material generation and management during construction and operation;
  - lighting, safety and security requirements during construction and operation; and
  - hours of construction work.

- Other necessary works directly associated with the project, such as road upgrades and/or connections, and infrastructure and services relocation.
- Approach to be taken towards urban design that would be utilised to minimise visual and landscape impacts and contribute positively to neighbourhood character.

## 3.4 **Project alternatives**

The EES should document the proponent's consideration of relevant alternatives and include an explanation of how specific alternatives were shortlisted for evaluation within the EES. The EES should investigate and document the likely environmental effects of the alternatives, particularly where these offer a potential to achieve beneficial environmental outcomes and can meet the objectives of the project. The discussion of relevant alternatives should include:

- an explanation of selection process for the proposed route;
- identification and evaluation of design alternatives;
- relevant environmental considerations, including a comparative description of the effects of each alternative on MNES;
- discussion of short, medium and long-term advantages and disadvantages; and
- documentation of the basis for the proposed project.

The effects of the preferred alternative should be compared to those of other alternatives or to a "no project" base case. Where appropriate, the assessment of environmental effects of relevant design alternatives is to address the matters set out in the subsequent sections of this document. The depth of investigation of alternatives should be proportionate to their potential to minimise potential adverse effects as well as meet project objectives.

### 3.5 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, including (but not limited to):

- Environment Effects Act 1978;
- Environment Protection and Biodiversity Conservation Act 1999 (Cth);
- Environment Protection Act 1970 (EP Act), Environment Protection (Industrial Waste Resource) Regulations 2009, as well as relevant State Environment Protection Policies (SEPPs) and related documents including SEPP (Groundwaters of Victoria) and SEPP (Waters of Victoria)<sup>7</sup>, SEPP (Prevention and Management of Contamination of Land), SEPP (Ambient Air Quality), SEPP (Air Quality Management) and Environment Protection (Industrial Waste Resource) Regulations;
- Public Health and Wellbeing Act 2008 (PHW Act);
- *Planning and Environment Act 1987* (P&E Act), and relevant provisions in the Kingston and Greater Dandenong Planning Schemes;
- Conservation, Forests and Lands Act 1987 (CF&L Act);
- Catchment and Land Protection Act 1994 (C&LP Act);
- Coastal Management Act 1995;
- Crown Land (Reserves) Act 1978;
- Land Act 1958;
- Flora and Fauna Guarantee Act 1988 (FFG Act);
- Water Act 1989;
- Wildlife Act 1975;
- Road Management Act 2004 (RM Act);

<sup>&</sup>lt;sup>7</sup>New SEPP (Waters) may become the relevant policy. This is due for finalisation in mid-2018. It will incorporate and include SEPPs Groundwater of Victoria and Waters of Victoria.

- Transport Integration Act 2010 (TI Act);
- Aboriginal Heritage Act 2006 (amended 2016) (AH Act) and Aboriginal Heritage Regulations 2007;
- Traditional Owners Settlement Act 2010 (TOS Act);
- Heritage Act 2017;
- Native Title Act 1993 (Cth).

The proponent will also need to identify and address other relevant policies, strategies, subordinate legislation and related management or planning processes that may be relevant to the assessment of the project. These include but are not limited to:

- Guidelines for the removal, destruction or lopping of native vegetation (2017);
- relevant roadside vegetation management strategies under the Kingston and Greater Dandenong Planning Schemes;
- Protecting Victoria's Environment Biodiversity 2037;
- EPBC Act policy statements, conservation advices, threat abatement plans and recovery plans for nationally listed threatened species and ecological communities and nationally listed migratory species (available at <a href="http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl">http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl</a>);
- Australia's obligations under the Ramsar Convention for the Edithvale-Seaford Wetlands Ramsar site (no. 1096); and
- relevant local government plans such as Kingston City Council's *Biodiversity Strategy 2008, Green Wedge Plan 2012, Integrated Water Cycle Strategy 2012* and *Public Health and Wellbeing Plan 2017-21.*

### 3.6 Consultation

The proponent is responsible for informing and consulting with the public and stakeholders throughout the preparation and exhibition of the EES, in accordance with a suitable EES consultation plan (Section 2.2). The EES should document the process and results of the consultation undertaken by the proponent during the preparation of the EES, including:

- issues raised and suggestions made by stakeholders or members of the public; and
- the proponent's responses to these issues, in the context of the EES studies and the associated consideration of mitigation measures.

The EES should also provide an outline of a program for community consultation, stakeholder engagement and communications proposed for implementation of the project, including opportunities for local stakeholders to engage with the proponent to seek responses to issues that might arise during project implementation.

## 3.7 Draft evaluation objectives

Through an integrated assessment of the project effects against the evaluation objectives, the EES will need to show that a balance of environmental outcomes has been considered, which contribute to integrated and sustainable transport development and provide a net community benefit over the short and long-term. This should include information on the project objectives and rationale to evaluate safety and capacity improvements expected to be created by the proposed road, while maintaining the connectivity of the existing local transport routes.

Table 1 includes draft evaluation objectives that identify desired outcomes in the context of potential project effects and relevant legislation. During the development of the EES the proponent can consider refining the objectives and proposed evaluation framework, as well as develop specific assessment criteria to assist the evaluation of effects.

The framing of the draft objectives reflects the key subject matters to be investigated the relevant legislation, policies (Section 3.5) and the objectives and principles of ecologically sustainable development and environmental protection.

The level of effort applied to the investigation, management and mitigation of issues in the context of the draft evaluation objectives should be proportionate to the significance of potential adverse effects (Section 4). The key environmental matters to be investigated for the EES set out within this scope are in line with those identified in the Minister's EES decision. The proponent should consult closely with DELWP Impact Assessment Unit and the TRG throughout the preparation of the EES to ensure that the investigation of issues is undertaken soundly and appropriately examining all of these key matters.

Draft evaluation objective	Key legislation
<b>Transport efficiency, capacity and safety</b> – To provide for an effective connection between the Mornington Peninsula Freeway and the Dingley Bypass, to improve travel efficiency, road safety, and network capacity, as well as improve amenity and local transport networks in the Aspendale/Dingley area.	TI Act, P&E Act, RM Act
${\bf Biodiversity}$ – To avoid, minimise or offset potential adverse effects on native vegetation, listed migratory and threatened species and communities, as well as habitat for other protected species.	FFG Act, P&E Act, Wildlife Act, CF&L Act, EPBC Act
Water, catchment values and hydrology – To minimise adverse effects on groundwater, surface water and floodplain environments and minimise effects on water quality and beneficial uses, including the ecological character of the Edithvale-Seaford Wetlands Ramsar site.	EP Act, Water Act, C&LP Act, SEPPs, EPBC Act
Land contamination and acid sulphate soils – To prevent adverse environmental or health effects from disturbing, storing or influencing the transport/movement of contaminated or acid-forming material.	EP Act, Water Act, P&E Act, C&LP Act.
$\label{eq:cultural heritage} \mbox{Cultural heritage}  \mbox{To avoid or minimise adverse effects on Aboriginal and historic cultural heritage}.$	AH Act, Heritage Act, P&E Act, TOS Act, Native Title Act.
<b>Amenity and environmental quality</b> – To minimise adverse noise and other amenity effects on nearby residents and land uses, having regard to relevant limits, targets or standards.	EP Act, SEPPs, P&E Act, RM Act, PHW Act
<b>Social, land use and infrastructure</b> – To minimise potential adverse social and land use effects, including impacts on existing infrastructure and open space.	P&E Act, PHW Act

#### Table 1: Draft evaluation objectives- Proposed Mordialloc Bypass

### 3.8 Environmental management framework

The EES will need to outline a transparent environmental management framework (EMF) with clear accountabilities for managing and monitoring environmental effects and hazards associated with construction and operation phases of the project in order to achieve acceptable environmental outcomes (Section 5).

## **4** Assessment of specific environmental effects

Preparation of the EES document and the necessary investigation of effects should be proportional to the project risk, as outlined in the Ministerial Guidelines (p. 14). A risk-based approach should be adopted during the EES studies, so that a greater level of effort is directed at investigating and managing those matters that pose relatively higher risk of adverse effects, in particular those identified in the Minister's EES decision (refer to section 1.2). The following sections set out specific requirements for the assessment of effects, using the following structure for each draft evaluation objective.

Effects must include discussion of all potential direct, indirect, on-site and off-site effects as result of the proposed project. The description and assessment of effects must consider the potential of the proposed project to impact on adjacent areas that may support relevant values as well as the immediate area of the proposed project.

*Key issues* or risks that the project poses to the achievement of the draft evaluation objective. In addition to addressing the highlighted issues, the proponent might undertake an appropriate environmental risk assessment.

**Priorities for characterising the existing environment** to underpin predictive impact assessments having regard to the level of risk. Any risk assessment by the proponent could guide the necessary data gathering.

*Design and mitigation measures* that could substantially reduce and/or mitigate the risk of significant effects.

**Assessment of likely effects** through predictive studies, estimates or modelling of effects that are reasonably likely, as well as evaluation of their significance, having regard to their likelihood.

**Approach to manage performance** measures that are proposed to manage risks of effects, assuming identified design and mitigation measures are applied, to achieve appropriate outcomes. This should inform the assessment of likely residual effects (assuming proposed measures are implemented) and consideration of relevant environmental offsets where applicable.

Effects must include discussion of all potential direct, indirect, on-site and off-site and cumulative effects that might result from the proposed action. The description and assessment of effects must not be confined to the immediate area of the proposed action but must also consider the potential of the proposed action to impact on adjacent areas that are likely to contain habitat for relevant species, including conservation reserves, wetlands and parkland.

## 4.1 Transport efficiency, capacity and safety

### Draft evaluation objective

To provide for an effective connection between the Mornington Peninsula Freeway and the Dingley Bypass, to improve travel efficiency, road safety, and network capacity, as well as improve amenity and local transport networks in the Aspendale/Dingley area.

#### Key issues

- Changes to distribution and volumes of traffic (including heavy vehicles) on roads that might be affected by the project.
- Effective integration of the proposed project with local transport networks including public transport and shared bicycle pathways.

• Identify and compare modelled transport performance of the preferred project relative to identified alternatives (including the arterial road option and the "no project" option), in terms of travel times, capacity, traffic volumes, road safety and accessibility.

#### Priorities for characterising the existing environment

- Characterise traffic and road conditions (times, capacity, volumes, road safety) for the "no project" scenario.
- Characterise existing transport patterns —private vehicles, commercial/freight heavy vehicles, active and public transport— to identify influences on capacity, travel times, safety and accessibility. This should have regard to both existing and known planned future land uses within the area, in which transport patterns might be affected by the project.

#### Design and mitigation measures

- Provide potential design solutions that optimise linkages with the existing local road network to
  maintain or enhance network functionality (for commercial and private vehicles and active and
  public transport).
- Address potential risk areas for road safety and outline any specific measures to avoid, minimise and mitigate road safety issues.

#### Assessment of likely effects

- Assess the project's effects on traffic volumes, traffic composition and travel time outcomes, with allowance as appropriate for induced demand resulting from the project.
- Assess the effects on network accessibility, safety and connectivity for commercial and private vehicles and active and public transport.
- Assess the possible timing and implications of the project, including the construction phase, on transport network performance.

#### Approach to manage performance

- Describe the performance of the preferred project option in meeting the proposed project's transport objectives, relative to alternatives.
- Describe options for maintaining network connectivity for all users during project construction.
- Outline an operational monitoring regime to enable network performance to be measured relative to EES forecasts.

### 4.2 Biodiversity

#### Draft evaluation objective

To avoid, minimise or offset potential adverse effects on native vegetation, listed migratory and threatened species and communities, as well as habitat for other protected species.

#### Key issues

- Direct loss of native vegetation and any associated listed threatened flora and fauna species and communities known or likely to occur in the project site, such as Plains Grassy Woodland, Damp Sands Herb-rich Woodland/Heathy Woodland Mosaic, Plains Grassy Wetlands, Creekline Grassy Woodland and Swamp Scrub Plains Grassy Woodland.
- Loss of, degradation, modification or hydrological alteration to any ecological communities listed as threatened under the FFG Act and EPBC Act, including revegetated areas, and including but not limited to:
  - Herb-rich Plains Grassy Wetland (West Gippsland) Community (FFG Act)/ critically endangered Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains (EPBC Act); and

- Plains Grassland (South Gippsland) Community (FFG Act).
- Direct loss of, or degradation to, habitat for flora and fauna species listed as threatened or migratory under the EPBC Act, the FFG Act and/or DELWP Advisory Lists, including but not limited to avifauna species, in particular:
  - Australian Fairy Tern (*Sternula nereis nereis*);
  - Eastern Curlew (Numenius madagascariensis);
  - Curlew Sandpiper (*Calidris ferruginea*);
  - Australasian Bittern (Botaurus poiciloptilus);
  - Sharp-tailed Sandpiper (Calidris acuminata);
  - Latham's Snipe (Gallinago hardwickii); and
  - Australian Painted Snipe (Rostratula australis).
- Indirect loss of vegetation or habitat quality, that may support any listed species or other protected fauna, resulting from hydrological or hydrogeological change, edge effects, overshadowing, habitat fragmentation, loss of connectivity, or other disturbance impacts including noise from haul trucks during construction and from potential increased traffic along Springvale Road through the Edithvale Wetland.
- Potential for adverse effects on the ecological character and biodiversity values of the listed Edithvale-Seaford Wetlands Ramsar site including, but not limited to, the bird species mentioned above.
- Potential for indirect effects on biodiversity values including but not limited to those effects associated with changes in hydrology (including surface and groundwater changes), water quality (i.e. on water dependent ecosystems), contaminants and pollutants, weeds, pathogens and pest animals.
- Potential for impacts on FFG Act and EPBC Act listed species and other protected species resulting from construction and operation activities, including but not limited to significantly increasing mortality due to road traffic, and disturbance to foraging, roosting and breeding of listed threatened species and listed migratory species due to increased lighting, noise and traffic.
- Potential for indirect significant impacts due to shading of vegetation because of the project including but not limited to elevated structures, such as the proposed bridges over Mordialloc Creek and the Waterways wetlands.
- The availability of suitable offsets for the loss of native vegetation and habitat for relevant listed threatened species, ecological communities and migratory species under the EPBC Act and/or FFG Act.

#### Priorities for characterising the existing environment

- Characterise the distribution and quality of native vegetation, terrestrial and aquatic habitat and any wildlife movement in the area that could be impacted by the project or associated works. This must include the quality and type of habitat impacted and quantification (in hectares) of the total impact area and areas indirectly impacted from the proposed action.
- Identify the existing or likely presence of any protected species, and especially species listed under the EPBC Act, FFG Act and DELWP Advisory Lists, as well as declared weeds, pathogens and pest animals.
- Characterise the listed threatened and migratory species, other protected species, ecological communities and potentially threatening processes that are likely to be present in the nearby wetlands, including wetlands that are part of the Edithvale-Seaford Wetlands Ramsar site. This characterisation is to be informed by the literature and recent available data (especially data <5 years old) and supported by seasonal or targeted surveys<sup>8</sup> where necessary. Details of the scope,

<sup>&</sup>lt;sup>8</sup> Note that targeted surveys for MNES must be undertaken in accordance with current Departmental guidelines and policy statements.

timing and method for studies or surveys used to provide information on the ecological values at the site (and in other areas that may be impacted by the project) should be outlined.

- Identify and characterise any groundwater dependant ecosystems that may be affected by the project works. This characterisation is to be informed by relevant data, literature and appropriate surveys.
- Identify flora and fauna that could be affected by the project's potential effects on air quality, noise or vibration levels.
- Describe the biodiversity values that could be affected by the project, including:
  - native vegetation and any ecological communities listed under the EPBC Act and FFG Act;
  - presence of, or suitable habitats for, native flora and fauna species, especially those listed under the EPBC Act, FFG Act, and DELWP Advisory Lists; and
  - use of the site and its environs for movement by EPBC Act, FFG Act, and DELWP Advisory List listed fauna species and other protected species.
- Describe the existing threats present to biodiversity values, including:
  - direct removal of individuals or destruction of habitat;
  - disturbance or alteration of habitat conditions (e.g. habitat fragmentation, changes to water quantity or quality, fire hazards, etc.);
  - threats of mortality of listed threatened fauna;
  - presence of any declared weeds, pathogens and pest animals within and near the project area; and
  - initiating or exacerbating potentially threatening processes under the FFG Act.

#### Design and mitigation measures

 Identify potential and proposed design options and measures that could avoid or minimise significant direct and indirect effects on native vegetation and any listed ecological communities or flora and fauna species and their habitat including the ecological character of the Edithvale-Seaford Wetlands and habitat connectivity values between the Waterways wetlands, Braeside Park and Woodlands Industrial Estate wetlands.

#### Assessment of likely effects

- Assess likely direct and indirect effects of the project and relevant alternatives on native vegetation, ecological communities and flora species, in particular any species listed under the FFG Act and EPBC Act.
- Assess likely indirect effects of the project on the ecological character and habitat values of the Edithvale-Seaford Wetlands, Braeside Park, the Waterways Wetlands and Woodlands Industrial Estate wetlands.
- Assess likely direct and indirect effects of the project and relevant alternatives on protected fauna and their habitat, including listed (FFG Act/EPBC Act) threatened and migratory species, relative to existing hazards and risks where relevant.
- Assess likely effects of the project and relevant alternatives on any groundwater dependant ecosystems and EPBC Act listed ecological communities, in particular due to project dewatering activities.
- Assess likely cumulative effects on biodiversity-related values that might result from the project in combination with other projects or actions taking place or proposed nearby.

#### Approach to manage performance

• Describe and evaluate proposed measures to further mitigate and manage residual effects of the project on biodiversity values, including an outline of an offset strategy that sets out and includes evidence of the offsets that have been secured or are proposed to satisfy offset policy requirements and the relevant provisions of planning schemes.

- Describe and evaluate the approach to monitoring and the proposed contingency measures to be implemented in the event of adverse residual effects on flora, fauna and ecological community values requiring further management.
- Identify any further methods proposed to manage risks and effects on other biodiversity values and native vegetation, including as part of the EMF (see Section 5).

#### Commonwealth offsets

- Describe and evaluate proposed measures to manage residual effects of the project on biodiversity values, including an outline of an offset strategy and Offset Management Plan that sets out proposed environmental offsets to satisfy Commonwealth offset policy requirements.
- Describe how the offset will be secured, managed and monitored, including management actions, responsibility, timing, performance measures and the specific environmental outcomes to be achieved.
- Outline the key commitments and management actions for delivering and implementing a proposed offset through an Offset Management Plan.
- Proposed offsets must meet the requirements of the *EPBC Act Environmental Offsets Policy* (Oct, 2012): <a href="http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy">www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy</a>.

#### 4.3 Water, catchment values and hydrology

#### Draft evaluation objective

To minimise adverse effects on groundwater, surface water and floodplain environments and minimise effects on water quality and beneficial uses, including the ecological character of the Edithvale-Seaford Wetlands Ramsar site.

#### Key issues

- The potential for adverse effects on the functions, values and beneficial uses of surface water environments (including Braeside West and Mordialloc Creek Wetlands, Waterways wetlands, Woodlands Industrial Estate wetlands, and associated Mordialloc Creek drainage system) due to the project, such as interception or diversion of flows or changed water quality or flow regimes during construction and operation.
- The potential for adverse effects on the functions, values and beneficial uses of groundwater due to the project, in particular on groundwater dependent ecosystems (GDEs) and the ecological character of the Edithvale-Seaford Wetlands due to changes in groundwater levels, behaviour or quality.
- The potential for adverse effects on nearby and downstream water environments (including the Mordialloc Creek catchment and Edithvale-Seaford Wetlands) due to changed flow regimes, floodplain storage, run-off rates, water quality changes, or other waterway conditions during construction and operation.
- The potential for adverse effects on biodiversity values of the Edithvale-Seaford Wetlands Ramsar site including, but not limited to:
  - Australasian Bittern; and
  - Sharp-tailed Sandpiper.

#### Priorities for characterising the existing environment

- Characterise relevant surface water, catchments and floodplain environments, including in terms of the existing drainage functions and behaviour.
- Characterise the relevant groundwater environments, including the protected beneficial uses and values, existing drainage functions and behaviours, including with regard to the nearby wetlands such as the Edithvale-Seaford Wetlands Ramsar site and identifying any GDEs that might be affected by the project.

- Characterise the interaction between surface water and groundwater within the project site and the broader area.
- Characterise the physical and chemical properties of the project area groundwater, including the potential pre-existing contamination.
- Identify and characterise the nature and status of any nearby projects which may affect the relevant groundwater environments.
- Detail and evaluate the groundwater modelling techniques utilised.

#### Design and mitigation measures

- Identify and evaluate aspects of project works, and proposed design refinement options or measures, which could avoid or minimise significant effects on water environments, including the Edithvale-Seaford Wetlands Ramsar site and Braeside West, Waterways wetlands and Mordialloc Creek Wetlands.
- Describe further potential and proposed design options and measures which could avoid or minimise significant effects on beneficial uses of surface water, groundwater and downstream water environments during the project construction and operation.
- Identify methods to manage and, if required dispose of groundwater, including contaminated groundwater during construction.

#### Assessment of likely effects

- Characterise the local and regional groundwater systems to predict short and long-term effects
  of the project on groundwater flow regime during construction and operation, including
  interactions between surface water and groundwater, and having regard to potential impacts of
  other relevant infrastructure projects.
- Identify and evaluate effects of the project and relevant alternatives on groundwater and adjacent surface water and floodplains environments near the project works, such as the Edithvale Wetlands, including:
  - the likely extent, magnitude and duration (short and long term) of changes to groundwater level or flow paths during construction and operation, considering appropriate climate change scenarios;
  - changes to groundwater and surface water quality at all project phases, including from drawdown and rebound of groundwater levels, present contaminants, saline water intrusion into aquifers, sedimentation and downstream effects on ecological values (e.g. groundwater dependent ecosystems, EPBC Act listed communities and the ecological character of the Edithvale-Seaford Wetlands Ramsar site);
  - changes to availability of groundwater for beneficial uses near the project;
  - changes to groundwater quality and flow construction, and compression of soil with the potential for reduced porosity and permeability, due to project works such as construction and placement of embankments, pilings and other structures in the project area; and
  - risks associated with potential acid forming materials (e.g. soil) which may be disturbed or exposed by the project activities.

#### Approach to manage performance

- Describe any further methods that are proposed to manage risks of effects on groundwater and surface water environments and catchment values, as well as water quality, including as part of the EMF (see Section 5).
- Describe any further methods that are proposed to manage risks of effects as a result of nearby projects impacting on water inflow to water environments and catchment values, as well as water quality.

- Describe and evaluate the approach to monitoring and the proposed contingency measures to be implemented in the event of adverse residual effects on water environments including water quality and catchment values requiring further management.
- Describe and evaluate the approach to monitoring and the proposed ongoing management measures to be implemented to avoid adverse residual effects on the Edithvale-Seaford Wetland.

### 4.4 Land contamination and acid sulfate soils

#### Draft evaluation objective

To prevent adverse environmental or health effects from disturbing, storing or influencing the transport/movement of contaminated or acid-forming material.

#### Key issues

- Potential for adverse environmental or health effects resulting from disturbance of or influencing the transport/ movement of contaminated soil, gases/ vapours or groundwater.
- Potential for adverse environmental or health effects resulting from handling, storage or transportation of excavated contaminated spoil or potential acid sulphate soils (PASS).
- Potential for adverse environmental or health effects from other waste materials/streams generated from project works.
- Potential for adverse environmental effects on the Edithvale-Seaford Wetlands Ramsar site resulting from disturbing, storing or influencing the transport/movement of contaminated or acid-forming material.

#### Priorities for characterising the existing environment

- Identify likely occurrence of PASS, contaminated soil and groundwater, and other potential sources of contaminated materials in the project area and their approximate location.
- Identify the likely occurrence of contaminated soils, gases/vapours and groundwater in the project area and nearby that have the potential to be altered or impacted by the project.
- Characterise the physical and chemical properties of the project area soils including the potential environmental risks (e.g. potential for contamination, salinity, nutrients and acidification).
- Estimate volumes and characteristics of excavated spoil.
- Identify other key waste streams that may be generated from the project.

#### Design and mitigation measures

- Identify methods to manage the potential activation of PASS and contaminated soil during construction.
- Outline and assess measures for the management of soils to minimise potential adverse effects on local hydrology and water quality associated with project area soils.
- Identify options for treating, reusing or disposing of excavation spoil with reference to the waste hierarchy, 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.
- 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, the West Gate Tunnel Project and level crossing removal projects) that will also be generating spoil.
- 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 environmental values, or human health during the project construction.

#### Assessment of likely effects

- Assess the potential contaminated sites that may be within the zone of change to groundwater, to determine the presence and potential migration or movement of contaminant plumes.
- Assess the potential effects of PASS and contaminated soil on environmental and human health during the project construction.
- Assess the effects on environmental values from the project construction waste streams.

#### Approach to manage performance

• Describe principles to be adopted for monitoring and management of spoil and other waste streams, including as part of the EMF (see Section 5).

## 4.5 Cultural heritage

#### Draft evaluation objective

To avoid or minimise adverse effects on Aboriginal and historic cultural heritage values.

#### Key issues

- Potential for adverse effects on known and unknown Aboriginal and non-Aboriginal cultural heritage values.
- Potential for permanent loss of significant heritage values.

#### Priorities for characterising the existing environment

- Characterise Aboriginal cultural heritage sites or areas of sensitivity in or near the project area, particularly around the former Carrum Carrum Swamp.
- Document known and previously unidentified places and sites of historic cultural heritage significance within and adjoining the project area, including any areas of significant archaeological interest, in accordance with the *Guidelines for Conducting Archaeological Surveys* (Heritage Victoria, 2008) as updated in 2013.

#### Design and mitigation measures

• Describe and evaluate potential and proposed design and construction mitigation methods to address effects on Aboriginal and historic cultural heritage, particularly near the former Carrum Carrum Swamp.

#### Assessment of likely effects

- Assess the potential effects on Aboriginal and historic cultural heritage resulting from the project and relevant alternatives.
- Assess the potential effects on sites and places of historic and cultural heritage significance, having regard to the *Guidelines for Investigating Historical Archaeological Artefacts and Sites* (Heritage Victoria, 2014).

#### Approach to manage performance

- Identify further methods proposed to manage risks of effects on Aboriginal and historic cultural heritage values, including as part of the EMF (see Section 5)
- Respond to requirements under the AH Act, such as preparation of a draft cultural heritage management plan (CHMP).
- Outline and evaluate proposed additional measures to manage risks of effects on sites and places of Aboriginal cultural heritage significance, within the framework of a draft CHMP<sup>9</sup>, and on sites and places of historic cultural heritage significance, including as part of the EMF (see Section 5).

<sup>&</sup>lt;sup>9</sup> Refer to EES Advisory Note: *Aboriginal Cultural Heritage and the Environment Effects Process* for further advice.

## 4.6 Amenity and environmental quality

#### Draft evaluation objective

To protect the health and wellbeing of residents and local communities, and minimise effects on air quality, noise and the social amenity of the area, having regard to relevant limits, targets or standards.

#### Key issues

- Potential for dust emissions resulting from construction works and activities, including dust from potentially contaminated soil.
- Potential for increases in noise and vibration levels during the project construction to significantly affect amenity in adjacent residential and parkland areas.
- Potential for increases in noise levels from the project's operation to affect amenity significantly in adjacent residential and parkland areas.
- Potential for increased vehicle traffic to affect local air quality adversely due to exposure to vehicle emissions.
- Potential for increased emissions of greenhouse gases to result from the project.

#### Priorities for characterising the existing environment

- Identify dwellings and any other potentially sensitive receptors (e.g. community centres, open spaces etc.) that could be affected by the project's potential effects on air quality, noise or vibration levels, especially vulnerable receptors including children and the elderly.
- Monitor and characterise background levels of air quality (e.g. dust and greenhouse gas emissions from equipment), noise and vibration in the vicinity of the project, including the established residential areas and other sensitive urban receptors along the road corridor.

#### Design and mitigation measures

• Identify potential and proposed design responses and/or other mitigation measures to avoid, reduce and/or manage any significant effects for sensitive receptors during the project construction and operation arising from specified air pollution indicators, greenhouse gases, noise, vibration and lighting, in the context of applicable policy and standards.

#### Assessment of likely effects

- Predict likely atmospheric concentrations of dust and other relevant air pollution indicators at sensitive receptors along the road corridor, during project construction and operation, using an air quality impact assessment undertaken in accordance with relevant SEPP environmental objectives.
- Assess likely noise, vibration and lighting impacts at sensitive receptors along the road corridor during project construction and operation (both with and in the absence of the proposed mitigation measures), relative to relevant standards.
- Estimate direct and indirect emissions of greenhouse gases resulting from the project.
- Assess potential safety hazards to the public arising from project construction.

#### Approach to manage performance

• Measures to manage other potentially significant effects on amenity, environmental quality and social wellbeing (including access to open spaces) should also be addressed in the EES, including a framework for identifying and responding to emerging issues, as part of the EMF (Section 5).

## 4.7 Social, land use and infrastructure

#### Draft evaluation objective

To minimise potential adverse social and land use effects, including impacts on existing infrastructure and open space.

#### Key issues

- Potential for dislocation due to severance causing reduced access to social networks and community facilities.
- Temporary restrictions to access to regionally significant open spaces, including Braeside Park.
- Potential for effects on the landscape and recreational values of neighbouring open space and residential areas, including the Mordialloc Creek, Waterways and Braeside Park environs from the project, in particular from elevated structures, such as bridges over the Mordialloc Creek, new Freeway interchanges, new ancillary structures such as noise barriers, and new lighting associated with the project.
- Potential for overshadowing, overlooking and/or other privacy or security impacts on nearby residential properties, especially in connection with new elevated stretches of road.
- Potential for changes to the existing infrastructure in the project area and in its vicinity.

#### Priorities for characterising the existing environment

- Describe the demographic and social character of residential communities in the vicinity of the project, as well as local movement patterns and any places with particular community, recreational or cultural significance.
- Characterise the landscape, existing viewshed and recreational values of the Mordialloc Creek, Waterways and Braeside Park environs, residential areas adjacent to the project and other relevant areas.
- Identify any existing infrastructure, land use plans or related objectives for land within, adjacent to or affected by the project, including for the Edithvale-Seaford Wetlands, Waterways and Braeside Park.

#### Design and mitigation measures

- Identify potential and proposed design responses and measures to minimise adverse social and land use effects.
- Identify potential and proposed design options and measures to mitigate adverse effects on the landscape values and associated recreational values of Waterways, Braeside Park and Mordialloc Creek environs.

#### Assessment of likely effects

- Assess the potential effects on communities living near the project, in terms of potential dislocation, severance or reduction in access to social networks, community facilities and valued places.
- Evaluate the consistency of the project with the policies and provisions of the Kingston and Greater Dandenong Planning Schemes and other relevant land use planning strategies.
- Assess the likely effects on the landscape and recreational values of Waterways, Braeside Park and Mordialloc Creek environs and other relevant areas.

#### Approach to manage performance

• Describe any further measures that are proposed to enhance social outcomes, and either manage risks to landscape and recreational values, or enhance visual amenity outcomes for residents living in the vicinity of the project, including as part of the EMF (see section 5).

## **5** Environmental management framework

Inadequate management of environmental effects during project construction, operation and site reinstatement could result in a failure to meet statutory requirements or sustain stakeholder confidence. The proponent needs to describe a transparent EMF for the project in the EES with clear accountabilities for managing and monitoring environmental effects and hazards associated with construction and operation phases of the project to achieve acceptable environmental outcomes.

The EMF should describe the baseline environmental conditions to be used to monitor and evaluate the residual environmental effects of the project, as well as the efficacy of applied environmental management and contingency measures. The EMF should include:

- the context of required approvals and consents, including any anticipated requirements for any related environmental management plans, whether for project phases or elements;
- any existing or proposed environmental management system (EMS) to be adopted;
- organisational responsibilities and accountabilities for environmental management;
- how a register of environmental risks associated with the project is to be maintained during project implementation (including matters identified in preceding sections in the Scoping Requirements as well as other pertinent risks);
- the environmental management measures proposed in the EES to address specific issues, including commitments to mitigate adverse effects and enhance environmental outcomes;
- the proposed objectives, indicators and monitoring requirements, including for (but not limited to) managing or addressing:
  - social outcomes and community engagement
  - biodiversity values, including offsets
  - maintenance of the ecological character of the Edithvale-Seaford Wetlands Ramsar site
  - groundwater and surface water quality, surface water flow and groundwater regimes
  - solid and liquid waste, including recycling and handling of potentially hazardous or contaminated waste, PASS and other excavated spoil
  - noise, vibration, and emissions to air, including dust and greenhouse gases
  - Aboriginal and historic cultural heritage values
  - traffic during construction, including managing temporary disruption and changed accessibility
  - disruption of and hazards to existing infrastructure
  - site reinstatement, including handling of topsoil
  - emergency management;
- arrangements for management of and access to baseline and monitoring data, to ensure the transparency and accountability of environmental management and to contribute to the improvement of environmental knowledge;
- the procedures for monitoring or verifying compliance with performance requirements and review of the effectiveness of the EMF for compliance and continuous improvement; and
- procedures for auditing and reporting of performance including compliance with relevant statutory conditions and standards.

The EMF should outline:

- the relevant environmental management plans for construction and operation phases of the project;
- 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 when the project is undertaken.

## APPENDIX A

#### **REASONS FOR DECISION UNDER ENVIRONMENT EFFECTS ACT 1978**

Title of Proposal: Mordialloc Bypass

Proponent: VicRoads

#### Description of Project:

The referral is for a new divided arterial road comprising two two-lane carriageways, connecting the Dingley Bypass (between Boundary and Tootal Roads) with the northern end of the Mornington Peninsula Freeway at Springvale Road. Intersections with the Dingley Bypass, Centre Dandenong Road, Lower Dandenong Road and Governor Road would be signalised, while a grade-separated "full diamond" interchange would be constructed at the Mornington Peninsula Freeway/ Springvale Road intersection. Old Dandenong Road would be truncated. A bridge or bridges approximately 400 metres long would be constructed to traverse wetlands at The Waterways and Mordialloc Creek and adjacent drainage lines.

#### Decision:

The Minister for Planning has decided that an Environment Effects Statement (EES) is required for the Mordialloc Bypass, as described in the referral accepted on 27 July 2017.

#### Reasons for Decision:

- The project has the potential for a range of significant environmental effects. In particular the project as proposed is likely to have significant effects on:
  - The habitat value and quality of wetlands and other habitats adjoining or traversed by the project, especially with regard to threatened species;
  - The surface water and groundwater systems which contribute to the health and habitat quality of adjacent and nearby wetlands, including the Ramsar-listed Edithvale wetland;
  - Indigenous cultural heritage values that may occur within the project alignment;
  - The containment and management of potentially contaminated soils and potential acid sulphate soils; and
  - Amenity values of adjacent land, especially residential land and parkland.
- Other potential effects on environmental (including social and economic) values are less likely to be significant, and should be amenable to effective management through existing statutory processes and requirements, for example under the *Planning and Environment Act 1978* and the *Environment Protection Act 1970*, including impacts such as construction noise, traffic and transport impacts and visual impacts.
- Assessment of potentially significant effects through an EES is necessary to ensure their extent, significance and related uncertainties are sufficiently investigated. Those investigations will inform strategies for avoidance, minimisation or mitigation to ensure residual effects are kept within acceptable limits.
- An EES will also enable a transparent and rigorous process for consideration of potentially significant adverse effects of the project to inform relevant statutory decision-making, including under the *Planning and Environment Act 1987*, the *Water Act 1989*, the *Flora and Fauna*

*Guarantee Act 1988* and, if required, the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth).

Date of Decision: 13 September 2017

## **APPENDIX B**

Commonwealth decision on Mordialloc Bypass under EPBC Act.

Australian Government Department of the Environment and Energy

Notification of

REFERRAL DECISION AND DESIGNATED PROPONENT - controlled action

Mordialloc Bypass Project, Victoria (EPBC 2017/8091)

This decision is made under section 75 of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

proposed action	To construct and operate the Mordialloc Bypass, a four-lane arterial road with divided median and path for walking and cycling, within Melbourne's south-eastern suburbs, with the provision of a future upgrade to a six-lane road [See EPBC Act referral 2017/8091]
decision on proposed action	The proposed action is a controlled action. The project will require assessment and approval under the EPBC Act before it can proceed
relevant controlling provisions	<ul> <li>Ramsar wetlands (sections 16 &amp; 178)</li> <li>Listed threatened species and communities (sections 18 &amp; 18A)</li> <li>Listed migratory species (sections 20 &amp; 20A)</li> </ul>
designated proponent	ROADS CORPORATION ABN 61 760 960 480
assessment approach	The project will be assessed under the assessment bilateral agreement with Victoria.
Decision-maker	
Name and position	James Barker Assistant Secretary Assessments and Governance Branch
Signature	And
date of decision	30/1/2018

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