

AUGUST 2019

# Environmental Management Framework

MORDIALLOC BYPASS

1202-01 EMF Version 3.0

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# 1 Introduction

## 1.1 Purpose

This Environmental Management Framework (EMF) has been developed by Major Road Projects Victoria (MRPV) to:

1. Provide the Mordialloc Bypass (Freeway) (the Project) with a transparent and integrated framework for managing environmental risk.
2. Achieve acceptable environmental outcomes through implementation of the Environmental Performance Requirements (EPRs).
3. Satisfy the Minister for Planning that MRPV has addressed condition 4.2.1 of the Incorporated Document (GC 107 – Kingston and Dandenong) pursuant to Section 6(2)(j) of the Planning and Environment Act 1987. Specifically:

*“4.2.1 Prior to the commencement of any development (excluding preparatory buildings and works under Clause 4.3), an Environmental Management Framework (EMF) must be approved by the Minister for Planning. The EMF must include Environmental Performance Requirements addressing the following areas and any other relevant matters:*

- a) Acid sulfate soil / contaminated land
- b) Air quality
- c) Biodiversity and habitat/ wetlands and waterways
- d) Cultural heritage (Aboriginal heritage and historic heritage)
- e) Economic
- f) Environmental Management
- g) Greenhouse gas / sustainability
- h) Landscape, urban design and visual
- i) Noise and vibration
- j) Social
- k) Surface Water and Ground Water
- l) Traffic and transport

4.2.2 The EMF must:

- a) set out the process and timing for development of the Construction Environmental Management Plan, Site Environmental Management Plans and other plans and procedures required by the Environmental Performance Requirements, including the process and timing for consultation with relevant council/s, Heritage Victoria, the Roads Corporation, Melbourne Water, Public Transport Development Authority, and the Environment Protection Authority; and
- b) be accompanied by a statement explaining any difference between it, and the matters set out in the Minister’s Assessment under the Environment Effects Act 1978 dated June 2019.

4.2.3 The EMF may be amended from time to time, to the satisfaction of the Minister for Planning.

4.2.4 The use and development of the project must be carried out in accordance with the approved EMF.”

## 1.2 Background

MRPV is a dedicated government body charged with planning and delivering major road projects for Victoria. MRPV is part of the Major Transport Infrastructure Authority which was established on 1 January 2019 as an Administrative Office in relation to the Department of Transport.

The Mordialloc Bypass Project (the project) is a nine-kilometre freeway linking Dingley Bypass in the north and the Mornington Peninsula Freeway in the south. The project is a four-lane freeway passing through the suburbs of Clayton South, Dingley Village, Braeside, Waterways, Aspendale Gardens, Chelsea Heights and Bangholme.

The Mordialloc Bypass has been subject to an environment effects statement (EES). The Commonwealth Minister for the Environment and Energy determined that the project is a controlled action that requires approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), due to potential impacts on matters of national environmental significance (MNES). The EES process served as the accredited process for the assessment purposes of the EPBC Act under the assessment’s bilateral agreement between the Australian and Victorian governments.

An Inquiry and Advisory Committee (IAC) was appointed to consider public submissions, the project's EES and a draft planning scheme amendment for the project. Planning Panels Victoria received 112 submissions and the IAC held public hearings from 25 February to 15 March 2019. The IAC published its report on 2 May 2019.

In light of the IAC report, the Minister for Planning subsequently released his assessment in June 2019 and concluded that: *“the project can proceed with acceptable environmental effects, subject to project modifications and an environmental management regime incorporating environmental mitigation, management and monitoring measures which are endorsed in this assessment. I am also satisfied that impacts on matters of national environmental significance can be managed within acceptable limits.”*

The *“environmental mitigation, management and monitoring measures”* contemplated by the Minister for Planning constitute the 49 ERPs. MRPV has considered advice provided by IAC and the Minister for Planning in refining the final EPRs in this EMF (Section 8).

### 1.3 Scope

MRPV has prepared this Framework, which includes EPRs, to define project-wide environmental performance outcomes that must be achieved during the design, construction and operation of the Project.

The EPRs have been developed to address identified risks and to achieve delivery of acceptable environmental outcomes. The performance-based approach taken by the EPRs aims to achieve required environmental outcomes, while allowing flexibility in the manner in which these are achieved. This approach enables consideration of alternatives in design development and project delivery, fostering innovation without compromising environmental outcomes.

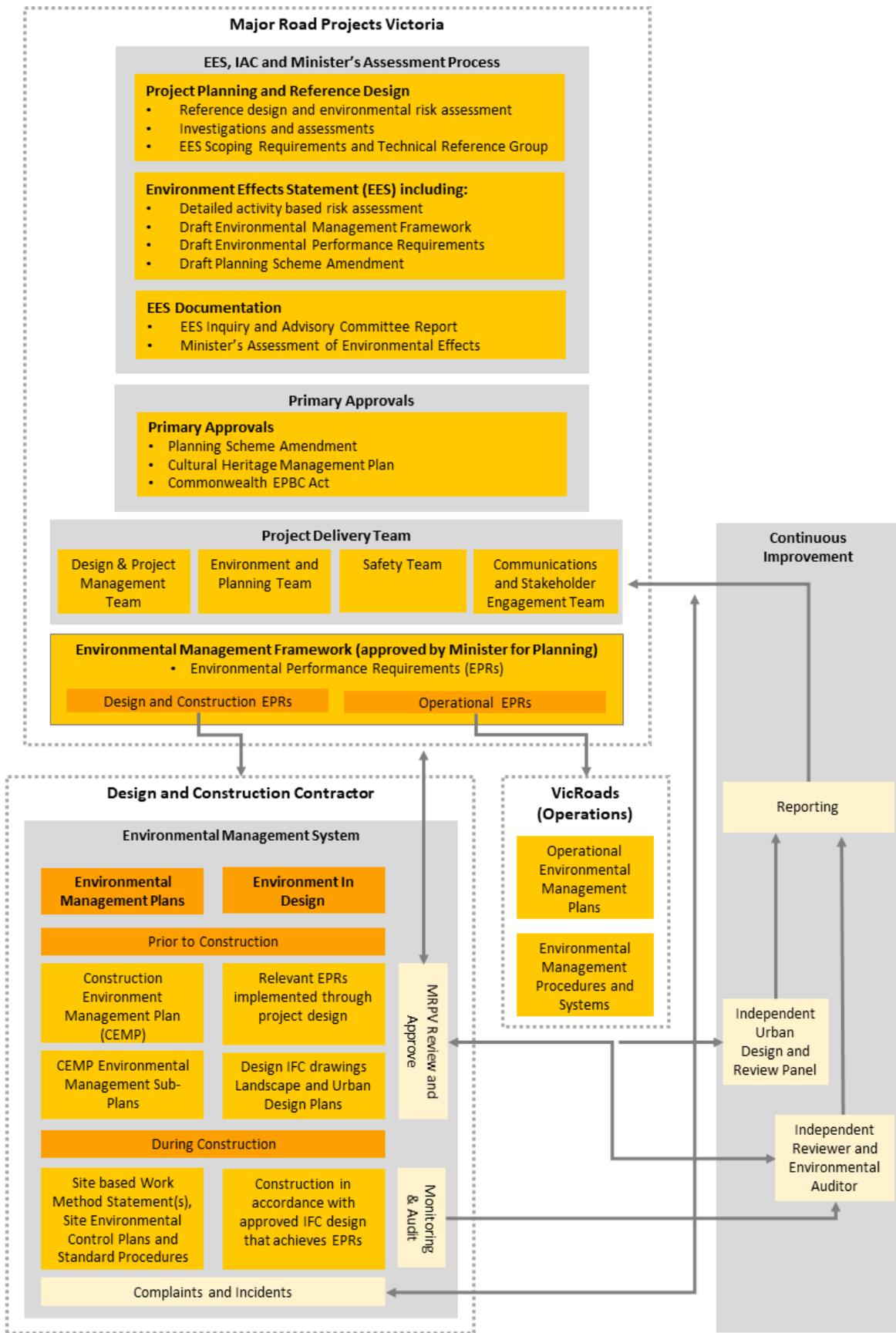
This Framework outlines clear accountabilities for the delivery of EPR outcomes and compliance with all relevant environmental laws, approvals, approval conditions and environmental management plans and procedures to ensure that the environmental risks of the Project are effectively and acceptably managed. The EE, and this Framework including the EPRs have been informed by an environmental risk assessment undertaken in accordance with the risk management standard ISO31000:2018.

This Framework also specifies that the D&C Contractor develop and implement an environmental management system, certified to AS/NZS ISO 14001:2015 *Environmental Management Systems – Requirements*, with guidance to the processes to be followed in the preparation, review, approval and implementation of environmental management plans and procedures. It also provides for the regular review and updating of environmental management plans and procedures as well as independent monitoring, auditing and reporting of compliance.

Through a legally binding contract, the D&C Contractor for the Project is required to prepare and implement a Construction Environmental Management Plan (CEMP), other management plans and where appropriate incorporate some EPRs into project design (e.g. regarding noise attenuation walls) consistent with this EMF. The CEMP and other management plans will detail the environmental management of all project construction activities in a manner that meets, as a minimum, the requirements of all relevant environmental laws, approvals, approval conditions, this EMF including specific construction EPRs.

The D&C Contractor is required to appoint an Independent Reviewer and Environmental Auditor (EPR-EM3 and dedicated Environmental Manager with authority and responsibility for environmental management during design and construction of the Project, including for ensuring any issues identified during monitoring and audits are adequately reported and addressed.

The structure of EMF is depicted in Figure 1. This framework will operate within the wider framework of statutory legislation, regulation, policy, guidelines, codes of practice, industry standards and specific approval conditions.



**Figure 1: Environmental Governance Structure**

## 1.4 Roles and responsibilities

As the proponent MRPV will hold statutory responsibility for the EMF. Through a legally binding contract MRPV will transfer all the relevant design and construction EPRs to the D&C Contractor. Through a certified EMS (AS/NZS ISO 14001: 2015) the D&C Contractor will have policies, procedures and measures to ensure that the project avoids, minimises and manages environmental impacts. The D&C Contractor will also be fully responsible and accountable for ensuring all activities conducted by its subcontractors are consistent with its EMS and the approved EMF. Any deliverable (e.g. management plans or design drawings) will be reviewed by an independent reviewer and auditor and approved by MRPV. Implementation of EPRs will be monitored by the D&C Contractor, MRPV and audited by an independent reviewer and auditor.

At the completion of the project, VicRoads (as the Victorian statutory road authority) will become responsible for the ongoing operation and maintenance of road related infrastructure. During the operational phase, the ongoing responsibility for environmental management monitoring or maintenance requirements will be undertaken by VicRoads in accordance with its existing management systems.

The key roles and responsibilities are described in Table 1.

**Table 1: Roles and responsibilities for environmental management**

Organisation	Role	Responsibility
Minister for Planning	Regulation	<ul style="list-style-type: none"> <li>Review and approve the EMF including the EPRs and any amendments under the Project's Incorporated Document</li> <li>Administer and assess compliance with EMF and other environmental management plans, or as otherwise agreed with the Minister for Planning</li> <li>Administer and enforce approved EMF as responsible authority for the administration and enforcement of the Incorporated Document.</li> </ul>
Commonwealth Minister for Environment and Minister for Energy	Regulation	<ul style="list-style-type: none"> <li>Administer and assess compliance with the EPBC approval and conditions. Approval pending.</li> </ul>
Regulators and Agencies	Regulation	<ul style="list-style-type: none"> <li>Administer and assess compliance with project approvals, legislation, regulations, policies, guidelines, codes of practice and applicable industry standards.</li> </ul>
MRPV	Proponent	<ul style="list-style-type: none"> <li>Obtain key project approvals comprising the Planning Scheme Amendment, Cultural Heritage Management Plan and approval under the EPBC Act (refer to Section 4 / Table 3)</li> <li>Finalise the EMF including EPRs for approval by the Minister for Planning as required by the Incorporated Document</li> <li>Ensure D&amp;C Contractor conforms to the EMF including the EPRs and through a legally binding contract and monitor and audit implementation and ensure compliance</li> <li>Ensure that the requirements of the EMF have been addressed and are complied with in the D&amp;C Contractor's design drawings, plans and environmental management documentation and systems</li> <li>Review, evaluate and approve Issued for Construction drawings which fulfil relevant EPRs</li> <li>Ensure the D&amp;C Contractor can fulfil to the requirements of the contract and EPRs, to the satisfaction of MRPV</li> <li>Review, evaluate and approve the CEMP and aspect specific management plans, as well as all revisions to these documents.</li> <li>Monitor compliance with the CEMP and take corrective action as necessary</li> <li>Liaise with regulators and other agencies as required</li> <li>Conduct stakeholder engagement and community consultation activities as required</li> </ul>

Organisation	Role	Responsibility
		<ul style="list-style-type: none"> <li>Establish the Independent Urban Design and Review Panel, and the Community and Stakeholder Engagement Management Framework, as required by EPRs</li> <li>Review and approve the Operations, Maintenance and Monitoring (OMM) Manual to apply to the operations phase of the Project.</li> </ul>
D&C Contractor	Delivery	<ul style="list-style-type: none"> <li>Obtain all other secondary project approvals, comply with all approval conditions and obtain necessary consents (refer to Section 4 / Table 3)</li> <li>Engage an Independent Reviewer and Independent Auditor with authority and responsibility for environmental management</li> <li>Comply with this Framework, contract specification, and all legislative requirements, approvals, approval conditions and design and construction EPRs</li> <li>Prepare and implement the Environmental Management Strategy, CEMP and aspect specific management plans as approved by MRPV</li> <li>Conduct compliance audits and take any necessary corrective action required to address issues raised</li> <li>Conduct stakeholder engagement and community consultation activities in consultation and collaboration with MRPV</li> <li>Ensure that all subcontractors are trained and comply with statutory requirements, approval conditions, the EMF, approved environmental management plans, design requirements and relevant codes of practice, polices, guidelines and industry standards</li> <li>Implement an EMS certified to AS/NZS ISO 14001: 2015 for design and construction activities</li> <li>Engage an independent reviewer and auditor to review the Environmental Management Strategy, CEMP, EMPs and design responses and audit compliance regularly</li> <li>Prepare OMM Manual as approved by MRPV.</li> </ul>
Environmental Manager	Delivery	<ul style="list-style-type: none"> <li>Responsible for environmental management issues during construction on behalf of the D&amp;C Contractor</li> <li>Review environmental audit reports and ensure issues are addressed.</li> </ul>
Independent Reviewer and Environmental Auditor	Review	<ul style="list-style-type: none"> <li>Review the D&amp;C Contractor's Environment Management Strategy, CEMP and other management plans as required by the EMF</li> <li>Review and certify the D&amp;C Contractors have implemented the relevant EPRs through project design in their drawings</li> <li>Monitor and audit the D&amp;C Contractors compliance with the Environment Management Strategy, CEMP and other environmental management sub-plans as required by the EPRs</li> <li>Conduct audits of the D&amp;C Contractors work to assess construction compliance with the approved IFC (issued for construction) design</li> <li>Assess compliance with project approvals, legislation, regulations, policies, guidelines, codes of practice and applicable industry standards.</li> <li>Review complaints which may highlight instances of non-conformance with applicable EPR</li> <li>Prepare audit reports and provide to MRPV quarterly.</li> </ul>
VicRoads	Operation	<ul style="list-style-type: none"> <li>Operate and maintain the road infrastructure</li> <li>Undertake operational phase environmental management monitoring or maintenance requirements as required by the EMF</li> <li>Incorporate the OMM Manual into operations and maintenance</li> <li>Deliver commitments identified in the Commitments Register which continue once the Project is delivered.</li> </ul>

## 2 EMF Objectives

The EMF has the following objectives:

1. Establish a framework to ensure compliance with statutory requirements, approvals, approval conditions and minimise environmental risks;
2. Set out the environmental performance outcomes to be achieved during the detailed design, construction and operation of the Project; and
3. Ensure accountabilities are identified for managing and monitoring environmental effects and hazards associated with implementation of the Project.

The EMF has adopted the final evaluation objective from the Minister’s Assessment, as shown in Table 2.

**Table 2: Environmental performance objectives**

Aspect	Environmental performance objective
Air Quality	Minimise adverse air quality and other amenity effects on nearby residents and land uses, having regard to relevant limits, targets or standards.
Biodiversity (Ecology and habitat/ wetlands and waterways)	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.
Contaminated land and acid sulphate soils	Prevent adverse environmental or health effects from disturbing, storing or influencing the transport/movement of contaminated or acid-forming material.
Cultural heritage	Avoid or minimise adverse effects on Aboriginal and historic cultural heritage.
Landscape, urban design and visual	Minimise adverse effects on landscape values, visual amenity and recreational values of public open space and on residents’ visual amenity, to the extent practicable.
Land use and planning	Minimise potential adverse land use and planning effects, including impacts on open space.
Noise and vibration	Minimise adverse noise and vibration effects on nearby residents and land uses, having regard to relevant limits, targets or standards.
Social and economic	Minimise potential adverse social and economic effects, including impacts on open space, amenity, existing infrastructure, business functionality and access.
Transport efficiency, capacity and safety	Provide for an effective connection between the Mornington Peninsula Freeway and 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.
Water, catchment values and hydrology	Minimise adverse effects on groundwater, surface water and floodplain environments and flooding levels as well as minimise effects on water quality and beneficial uses, of downstream environments including the ecological character of the Edithvale-Seaford Wetlands Ramsar site.

# 3 Project description

This EMF applies to the use and development of the project land for the purposes of, or related to, the project as described in clause 4.2 of the Mordialloc Bypass (Freeway) Incorporated Document.

## 3.1 Preparatory work

In accordance with the Planning Scheme Amendment Incorporated Document the following preparatory work is permitted prior this EMF being approved and prior to formal construction commencing.

Preparatory building and works for the project including but are not limited to:

- Works, including vegetation removal, where, but for this Incorporated Document, a planning permit would not be required under the provisions of the planning schemes
- Investigating and testing to determine the suitability of land, and property conditions surveys
- Creation and use of construction access points and working platforms
- Site establishment works including temporary site fencing and hoardings, site offices, and hardstand and laydown areas
- Construction, protection, modification, removal or relocation of utility services, overhead and associated infrastructure
- Establishment of environmental and traffic controls, including designation of “no-go” zones
- Establishment of temporary car parking
- Demolition to the minimum extent necessary to enable preparatory and buildings and works;
- Salvaging and relocation of artefacts required to be undertaken in accordance with the approved cultural heritage management plan prepared for the project under the *Aboriginal Heritage Act 2006* or otherwise in compliance with that Act, and
- Removal of native vegetation to the minimum extent necessary to enable preparatory building and works.

## 3.2 Construction

The Project involves the following major construction activities:

Site establishment:

- Erecting suitable fencing, gateways and signage to delineate project boundaries and to establish a construction right of way
- Traffic management measures would be implemented as required
- A temporary contractor’s site office and compound, plant and equipment laydown, stockpile storage areas as required
- The road alignment will undergo a clearing of vegetation and grubbing process to remove existing infrastructure, debris and vegetation
- Erosion and sedimentation controls will be progressively installed as needed for relevant activities. Additional environmental management measures will be installed as required, including fencing off and signage to protect no go areas/zones
- Topsoil stripped in the construction area (outside specified and fenced protected areas) will be stored on site, for later reuse, protected with silt fencing, and seeded to minimise erosion
- Utilities will be relocated or protected as and when necessary
- Stormwater drainage works will be completed, including constructing water sensitive road design measures, which may be consolidated with temporary sediment basins if practical.

Earthworks:

- Earthworks and pavement preparation will be carried out by graders and other equipment, including compacting the resultant surface using various rollers and compactor equipment
- Cut material will be excavated to the necessary level, as and where required
- Additional fill material will be imported as required

Civil and structure works

- Verges will be constructed, batters completed, and roadside elements constructed as required. Required kerbs and channels will be constructed throughout. Granular pavement materials will be imported, placed and compacted
- Asphalt pavement will be applied by pavers and rollers, or sprayed seal treatments as applicable

- Lighting, CCTV cameras, line markings, signs and other road furniture (e.g. safety barriers and guide posts) will be installed where required
- Bus stops and associated infrastructure works at Centre Dandenong Road and Springvale Road
- Construction of infrastructure including drainage, road pavement, shared use path and footpaths
- Construction of bridges and installation of any gantries, cantilevers or other major sign supports or crown units (which have previously been manufactured offsite) and connecting these so they are integral with the completed works
- Constructing any off-structure bridge barriers required, including footing details and precast barrier units. This will need materials brought on site and connected to each other, as well as any other wire rope safety barrier or guard fence to protect end terminals.

Clean-up and reinstatement:

- Cleaning up the site and disposing of all waste materials
- The construction footprint will be progressively landscaped and revegetated, including reinstating and topping up topsoil, seeding, planting trees and shrubs, and installing weed mats and mulch, and installing any design elements addressed in the CEMP and relevant management plan(s).

Operation and maintenance:

- Operational activities include ongoing road maintenance consistent with applicable practices and standards to be maintained by VicRoads include landscaping, stormwater drains, bridges, road pavement, signage, barriers and line marking.

This project is expected to be completed and opened by 2021.

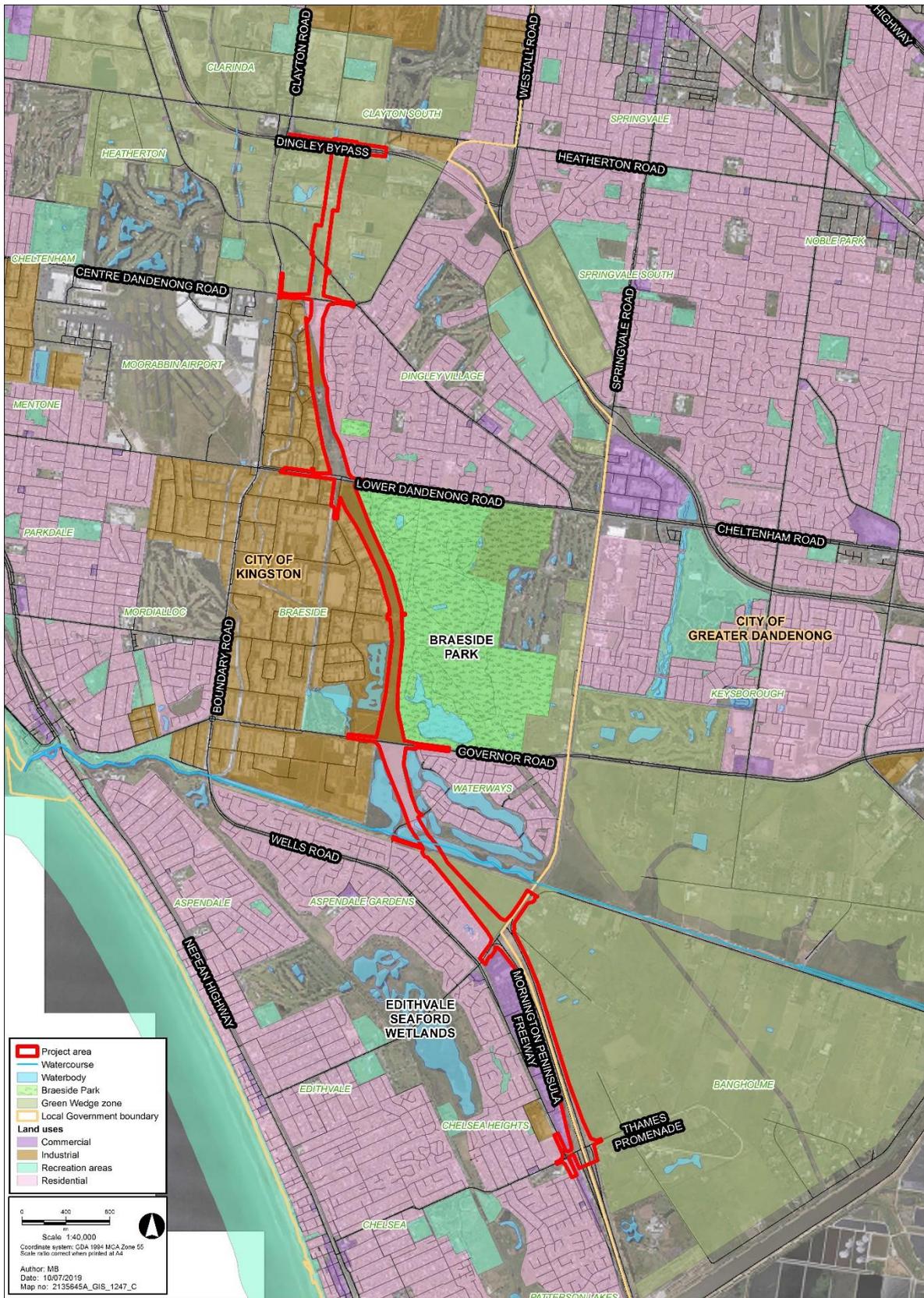


Figure 2: Project overview

## 4 Approvals and consents

To inform primary approval, an EES was undertaken to assess for the significant environmental effect (Reference: 2017-R09) and this leads to a Minister’s Assessment of the environmental effects of the project. The outcome of the Minister’s assessment informs all relevant approval decisions including conditions. The approvals include: -

- *Environment Protection and Biodiversity Conservation Act 1999* – Reference: EPBC 2017/8091 (pending approval)
- *Planning and Environment Act 1987* – Planning Scheme Amendment Reference: GC107
- *Aboriginal Heritage Act 2006* – Cultural Heritage Management Plan (CHMP) Reference: 15026

The statutory approvals and consents required for the Project are summarised in Table 3, with responsibilities assigned to MRPV or the D&C Contractor as relevant. MRPV and the D&C Contractor have a contractual arrangement that assigns responsibility for compliance with approvals conditions to the D&C Contractor however MRPV remain statutorily responsible for compliance.

**Table 3: Summary of main statutory approvals and consents**

Act	Requirements	Responsibility	Implementation
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)	EPBC referral, assessment and approval	MRPV	MRPV will ensure that approval conditions are observed, including through appropriate supervision and auditing of D&C contractor performance.
<i>Planning and Environment Act 1987</i>	Planning scheme amendment to permit use and development of the Project	MRPV	MRPV will require the D&C Contractor to comply with the conditions of the Planning Scheme Amendment Incorporated Document conditions and the EMF approved by the Minister for Planning.
<i>Aboriginal Heritage Act 2006</i>	Cultural Heritage Management Plan (CHMP)	MRPV	MRPV will require the D&C Contractor to comply with the approved CHMP and relevant EPRs.
<i>Environment Protection Act 1970</i>	Environmental Improvement Plan	D&C Contractor	If necessary, the D&C Contractor will obtain and comply with any EPA permit, consent or approval, and the General Environmental Duty.
<i>Flora and Fauna Guarantee Act 1988</i> (FFG Act)	Permit for the removal of listed flora from public land	D&C Contractor	The D&C Contractor will be required to obtain and comply with FFG Act permits required for the Project.
<i>Heritage Act 2017</i>	Permit and/or consent to disturb	D&C Contractor	The D&C Contractor will be required to obtain and comply with all heritage permits and/or consents.
<i>Road Management Act 2004</i>	Consent is required for traffic management works on roads	D&C Contractor	The D&C Contractor will be required to obtain and comply with all requisite Road Management Act consents.
<i>Water Act 1989</i>	Approvals will be required for works to be undertaken	D&C Contractor	The D&C Contractor will be required to obtain and comply with all permits and licenses under the Water Act.

Act	Requirements	Responsibility	Implementation
	in relation to groundwater and waterways		
<i>Wildlife Act 1975</i>	Permit to remove, salvage capture or relocate fauna	D&C Contractor	The D&C Contractor will be required to obtain and comply with any permit that may be required.

## 5 Risk assessment

Risk assessment (ISO 31000:2018 *Risk Management – Principles and Guidelines*) has been central to the development of the Project. A risk assessment covering heritage, ecological, biophysical, cultural, social, health, safety and economic aspects associated with design, construction, operation and maintenance was prepared as an integral part of project development, planning, referrals and the Environment Effects Statement (EES) ([Attachment I](#)). The risk assessment and EES informed the development of the EPRs (Table 6), and key risks constituted the focus of attention during the IAC hearings and report and the Minister for Planning’s assessment.

As part of the preparation of the CEMP, the D&C Contractor will identify more detailed design and construction environmental risks, and these will be incorporated into an overall project risk register. The CEMP and associated sub-plans will propose management measures proportionate to this risk assessment and align with the Minister’s assessment and this EMF.

## 6 Environmental management documentation

As indicated in Figure 1, the EMF considers a range of documents that are linked and cascade from a high level down to detailed site-based documents. All project documentation and activities must be consistent with the contractor’s accredited environmental management system. Conceptually the three levels of documentation are set out in Table 4 and in the following sections.

**Table 4: Levels of environmental management documentation**

Level	Documentation	Document Chapter
Strategy	Environmental Management Framework and Environmental Performance Requirements – derived from risk assessment, EES, IAC report and Minister for Planning’s assessment.	This EMF document and Section 8
Plans and Drawings	<ul style="list-style-type: none"> <li>• D&amp;C contract</li> <li>• CEMP</li> <li>• Aspect specific management plans or subplans including those required under the EPRs</li> <li>• Construction Traffic Management Plans</li> <li>• Business Disruption Plan</li> <li>• Landscape and urban design plans and drawings</li> <li>• Sustainability Management Plan</li> <li>• Construction Communication and Community Engagement Plan</li> <li>• Engineering design drawings (e.g. noise attenuation walls).</li> </ul>	Outlined in Section 6
Day to day construction and operations	<ul style="list-style-type: none"> <li>• Job Analysis and Work Method Statements</li> <li>• Environmental Control Procedures</li> <li>• Standard environment designs</li> </ul>	Outlined in Section 6.4

Level	Documentation	Document Chapter
	<ul style="list-style-type: none"> <li>Standard material and equipment specifications</li> <li>Environmental checklists.</li> </ul>	

## 6.1 Environmental Management System

The D&C Contractor will operate in accordance with a certified EMS.

The project-specific environmental management system will be designed and implemented to help manage potential environmental impacts and improve performance caused by construction activities. It provides structure to environmental management and covers areas such as training, record management, inspections, objectives and policies.

## 6.2 Construction Environmental Management Plan

The CEMP will be consistent with, and meet as a minimum, the requirements of all relevant environmental laws, approvals, approval conditions, guidelines, codes of practices, industry standards and the specific requirements of each relevant EPR. The CEMP will be prepared by the D&C Contractor, reviewed by the Independent Reviewer and Environmental Auditor and then reviewed and approved by MRPV's project Senior Environmental Manager.

The CEMP will set out roles and responsibilities for ongoing development and implementation of the CEMP, verifying compliance before construction commences and monitoring its effectiveness during construction. The CEMP will be reviewed at least every six months and necessary amendments made to clarify or improve environmental management practices or to add new obligations and associated controls.

The CEMP will also contain detailed procedures and actions for meeting the EPRs for works, and include procedures for:

- Satisfying the EPRs and the requirements of approvals and approval conditions
- Assessing risk to inform management requirements for activities covered by the CEMP
- Managing specific activities and risks including controls and mitigation measures to be implemented, including implementation of contingency measures to address the potential for adverse effects to be greater than predicted or permitted
- Site induction and training and the process for identifying environmental training needs based on identified competency requirements for relevant project personnel
- Emergency/incident response training
- Monitoring, reporting and auditing
- Provision of information to assist in the conduct of audit reports including compliance reports
- Development, implementation, reviewing, updating and monitoring of the relevant management plans required by the EPRs Managing environmental incidents including incident reporting and investigation
- Management of non-conformances with the CEMP, approvals or environmental requirements including the EPRs
- Corrective and preventative action
- Reviewing and updating the CEMP at least every six months and more frequently (as necessary) to take account of events or circumstances which may affect the way the project activities are to be carried out including in response to an audit finding or additional approval.

The CEMP will also incorporate and integrate the requirements of the D&C Contractor's certified EMS (AS/NZS ISO 14001: 2015).

## 6.3 Management plans and design drawings

The EPRs require the preparation and implementation of additional plans and design responses, set out in Table 5.

**Table 5: Preparation and implementation of additional plans required by EPRs**

EPR #	EPR Name	Management Plans	Design	Prepared by	Approved by	Consultation
EM1	Environmental management plans	✓		D&C Contractor	MRPV	Kingston City Council, Greater Dandenong City Council, VicRoads,

EPR #	EPR Name	Management Plans	Design	Prepared by	Approved by	Consultation
						Melbourne Water and EPA Victoria
EM2	Environmental complaints management	✓		D&C Contractor	MRPV	
EM3	Independent Reviewer and Environmental Auditor			D&C Contractor		
AQ1	Air quality (operation)		✓	D&C Contractor	MRPV	
AQ2	Air quality (construction)	✓		D&C Contractor	MRPV	EPA Victoria
B1	Fauna habitat		✓	D&C Contractor	MRPV	Suitably qualified specialist ecologist
B2	Lighting design		✓	D&C Contractor	MRPV	
B3	Native vegetation and habitat	✓		D&C Contractor	MRPV	
B4	Fauna (construction)		✓	D&C Contractor	MRPV	
B5	Native vegetation (construction)		✓	D&C Contractor	MRPV	Suitably qualified ecologist
B6	Flora and Fauna (operation)		✓	D&C Contractor	MRPV	DoEE, DELWP, Melbourne Water, Parks Victoria, VicRoads and any other relevant land manager
CL1	Soil Management Plan	✓		D&C Contractor	MRPV	EPA Victoria
CL2	Acid Sulphate Soil Management Plan	✓		D&C Contractor	MRPV	EPA Victoria
CL3	Passive landfill gas capture and venting		✓	D&C Contractor	MRPV	EPA Victoria, VicRoads
CL4	Landfill Gas Management Plan (Construction)	✓		D&C Contractor	MRPV	EPA Victoria
CL5	Landfill Gas Management Plan (Operation)	✓		D&C Contractor	MRPV	EPA Victoria
CL6	PFAS Management Plan	✓		D&C Contractor	MRPV	EPA Victoria
CL7	Landfill material		✓	D&C Contractor	MRPV	EPA Victoria
E1	Business Disruption Plan	✓		D&C Contractor	MRPV	
E2	Utility assets		✓	D&C Contractor	MRPV	Asset owners

EPR #	EPR Name	Management Plans	Design	Prepared by	Approved by	Consultation
GG1	Greenhouse gas monitoring and reporting		✓	D&C Contractor	MRPV	
GG2	Emissions reduction		✓	D&C Contractor	MRPV	
H1	Cultural Heritage Management Plan	✓		MRPV	MRPV	Registered Aboriginal Party (RAP) or Aboriginal Victoria
H2	Unidentified non-Aboriginal historical archaeological sites	✓		D&C Contractor	MRPV	Heritage Victoria
H3	Non-Aboriginal heritage sites		✓	D&C Contractor	MRPV	
LV1	Landscape and urban design	✓		D&C Contractor	MRPV	Greater Dandenong, Kingston City Councils and relevant stakeholders
LV2	Crime prevention through environmental design		✓	D&C Contractor	MRPV	
LV3	Reinstatement works		✓	D&C Contractor	MRPV	Relevant land manager
LV4	Lighting (operation)		✓	D&C Contractor	MRPV	
LV5	Light spillage (construction)		✓	D&C Contractor	MRPV	
LV6	Tree removal		✓	D&C Contractor	MRPV	
LV7	Landscape management strategy	✓		D&C Contractor	MRPV	
LV8	Independent urban design review panel		✓	MRPV		
NV1	Noise and vibration (design)		✓	D&C Contractor	MRPV	
NV2	Construction Noise and Vibration Management Plan	✓		D&C Contractor	MRPV	EPA Victoria
NV3	Traffic noise verification		✓	D&C Contractor	MRPV	
S1	Community and Stakeholder Engagement Plan	✓		D&C Contractor	MRPV	Kingston City Council and Greater Dandenong City Council
S2	Recreational facilities		✓	D&C Contractor	MRPV	Relevant land manager(s) and affected stakeholder organisations
T1	Intersection and freeway design and performance		✓	D&C Contractor	MRPV	

EPR #	EPR Name	Management Plans	Design	Prepared by	Approved by	Consultation
T2	Transport Management Plan	✓		D&C Contractor	MRPV	Kingston City Council, Greater Dandenong City Council, VicRoads and public transport providers
T3	Vehicle and pedestrian access		✓	D&C Contractor	MRPV	
T4	Traffic validation	✓		D&C Contractor	MRPV	
W1	Water body health		✓	D&C Contractor	MRPV	
W2	Flood protection (operation)		✓	D&C Contractor	MRPV	
W3	Surface water management (construction)		✓	D&C Contractor	MRPV	Relevant authorities
W4	Flood protection (construction)		✓	D&C Contractor	MRPV	Relevant drainage authority, Melbourne Water
W5	Water Management and Monitoring Plan	✓		D&C Contractor	MRPV	EPA Victoria and relevant water authorities
W6	Surface water management (design and operation)		✓	D&C Contractor	MRPV	Melbourne Water, Kingston City Council and Greater Dandenong City Council
W7	Water Asset Management Plan (Operation)	✓		D&C Contractor	MRPV	

### 6.3.1 EPR consultation and approval requirements

The consultation and approval requirements for each EPR is outlined in Table 5 above.

The D&C Contractor will fulfil the requirements of this EMF including the EPRs with the exception of EPR LV8 (Independent Urban Design and Review Panel) which is implemented by MPRV. Prior to transmitting draft plans or drawings that fulfil the EPRs the D&C Contractor will ensure they are first reviewed by the Independent Reviewer and Environmental Auditor (EM3).

Consultation may include meetings, workshops, and exchange of documentation and correspondence with relevant parties. Each EPR is to be adhered to the satisfaction of MRPV and the extent of consultation and outcomes will be documented to demonstrate compliance.

### 6.3.2 Adaptive management and contingency measures

Where appropriate the CEMP and various management plans will include escalating, proportionate and proactive management and contingency measures to address foreseeable risk-based events, activities and consequences. The plans will document triggers associated with activities involving higher risk (e.g. pile driving or night work) and describe specific measures to ensure risk is managed to acceptable levels, complemented by monitoring that demonstrates effective management from a compliance perspective. Adaptive management and contingency measures will comply with all relevant legislation, regulation, policy, codes of practice, guidelines, industry standards, approval conditions and the specific requirements of each the EPR.

The adaptive management approach will be developed and implemented in close collaboration and consultation with the MRPV and D&C Contractor Stakeholder and Community Engagement team.

## 6.4 Work procedures, specifications and processes

Once the CEMP and other environmental management plans are approved by MRPV the D&C Contractor will develop aligned day to day site based working documents that will be used by all construction staff; including:

- Job Analysis and Work Method Statements – Short specific actions and procedures associated with routine activities that have environmental risks e.g. earthworks, dust monitoring and control or recycling
- Environmental Control Procedures – Often small-scale site plans showing the location and required deployment of environmental management and monitoring measures e.g. sediment control fences
- Standard environment designs – Generic design drawings showing on-site environmental measures e.g. no-go fencing, sediment control devices, temporary sedimentation basins or construction design lighting
- Standard material and equipment specifications – Minimum specification for construction environmental measures e.g. dust control chemicals/agents, monitoring equipment
- Environmental checklists – Checklists and requirements that will be fulfilled before activities commence.

These documents will be accessible throughout the worksite, on-line and form the basis of staff induction and training. They will also provide the primary tool to achieve and demonstrate environmental performance and compliance as part of an audit process.

# 7 Performance management

Compliance with the EPRs will be achieved through:

- Overarching MRPV responsibility for the EMF
- Where applicable ensure the D&C Contractor conforms to the EPRs through a legally binding contract
- Prepare and implement an environmental management system that is certified to ISO 14001:2015 by the D&C Contractor with guidance for use for construction and operation
- Approval of environmental plans and drawings following preparation by the D&C Contractor and review by the Independent Reviewer and Environmental Auditor
- Incorporation of triggers and adaptive management and contingency measures in all environmental management plans
- Monitoring and compliance audits associated with management plan implementation at a site level
- Site surveillance and inspections by MRPV
- Transparent management of incidents, complaints and non-conformances between D&C Contractor, MRPV, stakeholders and regulators
- Monitoring of compliance with the approval conditions by the statutory authorities
- Post construction operational verification monitoring and management
- Implementation of remedial action in the event any non-compliance issue is identified
- Statutory enforcement and penalty provisions under relevant legislation.

This approach will ensure the EMF and the various environmental management plans, design drawings and procedures are implemented successfully and the potential for unacceptable adverse effects are managed.

The D&C Contractor will prepare standard monthly and/or quarterly environmental performance reports as part of an integrated project reporting framework. The matters reported may include:

- Status of current and planned works, key environmental issues and management measures
- Any proposed amendments to this document, CEMP, sub plans, project design, construction methods or operations
- Records of compliance with EPRs and approval conditions and environmental legislation, policies and standards
- Copies of applications for consents, licences and approvals and the responses from authorities
- Details of complaints or incidents and corrective and preventative actions taken
- Forecast high risk activities and detailed management, contingency and communication plans
- Summary of any consultation with regulatory authorities or other stakeholders including summary of key issues raised and how they have been responded to
- A copy of any environmental studies, monitoring results and analysis
- A summary of contingency measures implemented to address adverse effects not permitted, predicted or anticipated
- A copy of audit reports and any review of the CEMP.

## 8 Environmental Performance Requirements

EPRs have been developed to address the identified risks and impacts and to deliver environmental benefits and are presented in Table 6.

**Table 6: Environmental Performance Requirements**

No.	Environmental Performance Requirements	Implementation by
EM1	<p><b>Environmental management plans</b></p> <p>Prepare and implement a Construction Environmental Management Plan (CEMP) and other management plans as required by the EPRs in accordance with the Environmental Management Strategy and prepare and implement an Operations Environmental Management Plan (OEMP) as required by the EPRs in accordance with the Environmental Management Framework. All plans must be prepared to the satisfaction of MTIA or the authority specified in the EPRs. Plans that apply to the operation phase of the project, including the OEMP, must be prepared in conjunction with VicRoads. All plans specified in the EPRs must be implemented.</p> <p>The CEMP must be prepared in accordance with Environment Protection Authority (EPA) Publication 480 <i>Environmental Guidelines for Major Construction Sites</i> (EPA Victoria 1996), EPA Publication 275 <i>Construction Techniques for Sediment Pollution Control</i> (EPA Victoria 275) and relevant best practice construction guidelines.</p> <p>The process for development and implementation of the CEMP and other management plan(s) must include consultation with the Kingston City Council, Greater Dandenong City Council, VicRoads, Melbourne Water and EPA Victoria as relevant. These consultation processes must be described in the relevant environmental plans. The CEMP and other management plan(s) must be integrated and must be approved by MTIA prior to the commencement of works (except for preparatory works referred to in the Incorporated Document). The OEMP must be approved by the MTIA prior to opening the project to the public.</p>	D&C Contractor
EM2	<p><b>Environmental complaints management</b></p> <p>Prior to the commencement of works a process for recording, managing, and resolving complaints received from affected stakeholders must be developed and implemented. The complaints management arrangements must be consistent with Australian Standard <i>AS/NZS 10002: 2014 Guidelines for Complaint Management in Organisations</i>.</p>	D&C Contractor
EM3	<p><b>Independent Reviewer and Environmental Auditor</b></p> <p>Appoint a suitably qualified Independent Reviewer and Environmental Auditor (IREA) to review and certify the CEMP and other management plans as required by the EPRs, in accordance with the Environmental Management Framework. The IREA must be an accredited Environmental Auditor or an EPA-appointed auditor. During construction audit reports must be provided to MTIA and the Minister for Planning on a regular basis as appropriate. Audit reports are to be made available to the public.</p>	D&C Contractor
AQ1	<p><b>Air quality (operation)</b></p> <p>The project must be designed and constructed to minimise air quality impacts during operation and to ensure the requirements of relevant legislation, policies and guidelines are met, including appropriate operational monitoring to obtain data in order to confirm model predictions and inform potential mitigation responses particularly for NO<sub>2</sub>, but not limited to:</p> <ul style="list-style-type: none"> <li>• State Environment Protection Policy (Air Quality Management)</li> <li>• State Environment Protection Policy (Ambient Air Quality).</li> </ul>	D&C Contractor, VicRoads
AQ2	<p><b>Air quality (construction)</b></p> <p>The air quality management plan must be prepared in consultation with EPA Victoria, including real-time monitoring to inform the dust control in response to adverse weather events in time to minimise impacts to sensitive receptors. The plan must be approved</p>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
	<p>prior to the works.</p> <p>Measures to minimise dust, odour and other air emissions must be implemented in accordance with relevant legislation, policies and guidelines including an air quality management plan, but not limited to:</p> <ul style="list-style-type: none"> <li>• EPA Victoria Publication 480: Environmental Guidelines for Major Construction Sites</li> <li>• VicRoads Contract Specification Standard Section 177, with PM10 monitoring undertaken for both residential and commercial receptors.</li> </ul>	
B1	<p><b>Fauna habitat</b></p> <p>Direct and indirect impacts on fauna must be minimised by preserving and enhancing habitat and facilitating habitat connectivity where practicable. This will be achieved through implementation of (as a minimum):</p> <ul style="list-style-type: none"> <li>• fauna crossings, including culverts modified for fauna movement between the Braeside Park Wetlands and Woodlands Industrial Estate Wetlands (minimum of 3 culverts), and between the Waterways wetland waterbodies south of Governor Road (minimum of 2 culverts)</li> <li>• multi-function fauna barriers, to limit fauna mortality and limit disturbance to surrounding habitat, at the following areas, subject to detailed design: <ul style="list-style-type: none"> <li>- Braeside Park: on the east side of the new roadway, provision of a 3 metre high barrier extending from Lower Dandenong Road to Governor Road</li> <li>- Woodlands Wetlands: on the west side of the new roadway, provision of a 4 metre high barrier extending from Park Way to the south approximately 750 metres, transitioning to a 3 metre high barrier to be provided from that location to Governor Road</li> <li>- Waterways Wetlands (north-west): on the west side of the new roadway, provision of a 2 metre high barrier extending from Governor Road to the south approximately 600 metres, transitioning to a 1 metre high barrier to be provided from that location to Bowen Park Way</li> <li>- Waterways Wetlands (north-east): on the east side of the new roadway, provision of a 2 metre high barrier extending from Governor Road to the south approximately 200 metres, transitioning to a 2.5 metre high barrier to be provided from that location to the south approximately 175 metres, transitioning to a 3 metre high barrier to be provided from that location to the south approximately 200 metres, transitioning to a 2.5 metre barrier to be provided from that location to Bowen Park Way</li> <li>- Waterways Wetlands (bridge structure): provision of a 3 metre high barrier on both sides of the new roadway bridge structure, extending from Bowen Park Way south to the Melbourne Water Levy</li> </ul> </li> <li>• wildlife friendly fencing that does not use barbed wire, including to control human and dog access to Braeside Wetlands and Braeside Park from the shared user path or roadway</li> <li>• landscaping including: <ul style="list-style-type: none"> <li>- the use of site-specific indigenous species</li> <li>- creating or revegetating habitat that maximises connectivity and minimises predation risk at fauna crossing points and under the constructed bridge over Waterways Wetlands</li> <li>- open wetland and grassy habitat where appropriate, including swales adjacent to fauna barriers</li> <li>- reinstatement of habitat in areas of the Waterways Wetlands disturbed by the project, including planting of wetlands species in accordance with the landscape plans (EPR LV1)</li> </ul> </li> <li>• a dual bridge structure at Mordialloc Creek/Waterways Wetland to allow light penetration and facilitate fauna movement.</li> </ul> <p>The multi-function fauna barriers must be solid and free from gaps or cracks and must be constructed from a material with an acoustic performance of at least <math>R_w + C_{tr} 25</math>.</p> <p>During detailed design and in consultation with a suitably qualified specialist ecologist, refine proposed height, form and materiality of the multi-function fauna barriers to optimise the achievement of bird flight diversion objectives without compromising the</p>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
	achievement of other objectives.	
B2	<p><b>Lighting design</b></p> <p>Fauna sensitive operational lighting design principles must be incorporated into lighting design in sensitive areas around wetlands and Braeside Park. The design principles are:</p> <ul style="list-style-type: none"> <li>• Siting of lights: <ul style="list-style-type: none"> <li>- Use lights only where necessary and use the minimum brightness (lumens) possible</li> <li>- Site lighting columns away sites of ecological value to the extent possible</li> <li>- Minimise the height of lighting where possible.</li> </ul> </li> <li>• Fixtures: <ul style="list-style-type: none"> <li>- Use shielding to shield bulbs and lenses and to minimise light spill onto sites of ecological value</li> <li>- Avoid reflective surfaces under lights.</li> </ul> </li> <li>• Wavelengths: <ul style="list-style-type: none"> <li>- Use narrow-spectrum light sources to lower the range of species affected by lighting, and avoid blue and white wavelengths (4200 kelvin, ideally &lt;3000 kelvin)</li> <li>- Use long wavelength bulbs to minimise the emission of UV light.</li> </ul> </li> </ul> <p>Best practicable measures must be adopted to avoid and minimise adverse impacts from construction on wildlife using habitat adjacent to the project.</p>	D&C Contractor
B3	<p><b>Native vegetation and habitat</b></p> <p>Native vegetation removal must be avoided, minimised and managed in accordance with the <i>Guidelines for the removal, destruction or lopping of native vegetation 2017</i> (Guidelines 2017). Native vegetation offsets will be required for the removal of native vegetation, with the area (in hectares) to be calculated and approved in accordance with these guidelines. Offsets where possible will be integrated with any offset requirements under the EPBC Act.</p> <p>No-go zones will be established to protect sensitive vegetation, trees and habitat areas that are not removed in accordance with the Guidelines 2017. No-go zones will be detailed, protected and managed in accordance with the requirements set out in <i>AS4970-2009 Protection of Trees on Development Sites</i> and mapped in the CEMP.</p>	D&C Contractor
B4	<p><b>Fauna (construction)</b></p> <p>Minimise, monitor and document impacts on fauna during construction works, including:</p> <ul style="list-style-type: none"> <li>• obtaining all relevant permits under the <i>Wildlife Act 1975</i></li> <li>• pre-clearing fauna surveys and relocation of fauna by qualified fauna handlers to nearby suitable habitat</li> <li>• directional temporary construction lighting to minimise lighting impact on sensitive fauna habitat</li> <li>• noise and vibration impact on sensitive fauna</li> <li>• if construction works near wetlands occur between September and March, monitoring of birds before and at regular intervals during construction to assess disturbance impacts, with minimisation of noisy and high disturbance works where practicable</li> <li>• regular inspections of excavations/trenches</li> <li>• excluding heavy construction vehicles along Edithvale Road near sensitive habitats</li> <li>• adding identified high value habitat trees (including hollow-bearing and large trees) into no-go zones where suitable</li> <li>• closure of excavations/trenches at the end of each day, where practicable, inspection of excavation/trenches for fauna at the start of each day and immediately before backfilling</li> <li>• minimise barriers to fauna movement at the end of each day and installation of fauna movement devices where effective to create safe crossing opportunities</li> <li>• enforced speed limits of 40km per hour within construction areas, outside of existing arterial roads.</li> </ul>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
B5	<p><b>Native vegetation (construction)</b></p> <p>Monitor, minimise and document impacts on retained/adjacent native vegetation, including:</p> <ul style="list-style-type: none"> <li>• pre-clearing surveys for threatened flora in the Mordialloc Creek/Waterways wetland impact area are to be conducted by a suitably qualified ecologist, and plants are to be relocated to a suitable recipient site where considered practicable by the ecologist</li> <li>• mapping and fencing of no-go zones and tree protection zones in accordance with AS4970-2009 Protection of Trees on Development Sites</li> <li>• no site compound, temporary offices, hardstand, plant storage facility or stockpiles will be established within no-go zones, nor will any works be conducted in such areas</li> <li>• environmental induction/training for construction personnel</li> <li>• development and implementation of weed hygiene measures to avoid the spread or introduction of weeds during construction, including vehicle and equipment hygiene measures</li> <li>• as far as practicable, re-establishing the landform and substrate under the Mordialloc Creek bridge following bridge construction. Any revegetation or replanting within listed threatened ecological communities should use species consistent with the communities' composition as far as practicable. Where consistent species cannot be used, minimising further loss of ecological community should be prioritised over plantings that may outcompete the extant community.</li> </ul>	D&C Contractor
B6	<p><b>Flora and Fauna (operation)</b></p> <p>Prior to opening the project to the public, a Flora and Fauna Monitoring and Management Plan must be prepared in consultation with Department of Environment and Energy (DoEE), Department of Environment, Land, Water and Planning (DELWP), Melbourne Water, Parks Victoria, VicRoads and any other relevant land manager. The plan must include flora and fauna monitoring by ecologists after opening, including:</p> <ul style="list-style-type: none"> <li>• An outline of the monitoring arrangements, including frequency and duration, in consultation with DELWP. Monitoring must occur annually for at least 7 years, including one monitoring event immediately prior to opening</li> <li>• available database information should be taken into account for benchmarking</li> <li>• monitoring of bird use of nearby wetlands (Woodlands Wetlands, Braeside Park Wetlands, and Waterways Wetlands) and threatened flora and weeds at the Waterways Wetlands</li> <li>• Design, implement and maintain an Aquatic Flora and Fauna Ecosystem Reinstatement and Maintenance Plan for the Waterways Wetlands ecological habitat</li> <li>• monitoring of measures to allow habitat connectivity for threatened fauna including Waterways bridge, fauna culverts, and revegetation</li> <li>• evaluation of measures (fencing and multi-function fauna barriers) to reduce wildlife and vehicle collisions.</li> </ul>	D&C Contractor, VicRoads, Melbourne Water, Park Victoria, relevant land managers
CL1	<p><b>Soil Management Plan</b></p> <p>Prior to the commencement of works (other than preparatory works referred to in the Incorporated Document), a Soil Management Plan (SMP) must be prepared and implemented in accordance with relevant regulations, standards and best practice guidelines including the National Environment Protection (Assessment of Site Contamination) Measure 1999 as amended in 2013. The plan must be developed in consultation with EPA Victoria and address the management requirements associated with the handling, storage, reuse and/or disposal of soils (clean fill and contaminated spoil) and comply with EPA Victoria's contaminated soil management and reuse on major infrastructure projects approvals process.</p> <p>The SMP must make provision for additional assessments to be conducted, where required, to more accurately locate sources of contamination and to refine management measures. Investigations must be undertaken in accordance with EPA Publication 702 (Soil Sampling).</p>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
	<p>The SMP must follow published EPA guidance on contaminated soil management and reuse on major infrastructure projects. The SMP must include an Acid Sulphate Soil Management Plan (EPR CL2) and management requirements for PFAS contaminated soils (see EPR CL6).</p>	
CL2	<p><b>Acid Sulphate Soil Management Plan</b></p> <p>Prior to the commencement of works (other than preparatory works referred to in the Incorporated Document), prepare an Acid Sulphate Soil Management Plan in consultation with EPA Victoria in accordance with the <i>Industrial Waste Management Policy (Waste Acid Sulphate Soils) 1999</i>, <i>EPA Publication 655.1 Acid Sulphate Soil and Rock</i>, and relevant EPA regulations, standards and best practice guidance. This plan must include:</p> <ul style="list-style-type: none"> <li>• locations and extent of potential acid sulphate soils that could be disturbed or otherwise affected by the project, including site-specific information for areas at risk</li> <li>• assessment of potential impact on human health, odour and the environment</li> <li>• measures to prevent oxidation of acid sulphate soils wherever possible, and</li> <li>• suitable sites for management, reuse or disposal of acid sulphate soils with regard to sensitive receptors (wetlands, waterways and residential areas).</li> </ul>	D&C Contractor
CL3	<p><b>Passive landfill gas capture and venting</b></p> <p>A passive landfill gas capture and ventilation system must be developed where the roadway traverses the landfill area to facilitate the emission of landfill gas to the atmosphere so as to minimise accumulation of landfill gas below the roadway.</p> <p>The passive landfill gas capture and ventilation system must:</p> <ul style="list-style-type: none"> <li>• be designed in conjunction with VicRoads and in consultation with EPA Victoria</li> <li>• meet the landfill gas management requirements of the EPA’s guideline Best Practice Environmental Management: Siting, design, operation and rehabilitation of landfills (EPA Victoria 2015) and Workplace Exposure Standards for Airborne Contaminants (Safe Work 2013)</li> <li>• be reviewed and approved by the IREA established under EPR EM4.</li> </ul> <p>During design, provision must be made for gas protection measures to be provided at all underground services, pits and other voids within the road reserve in locations where landfill gas is emitted, or to which it has the potential to migrate.</p> <p>The passive landfill gas capture and ventilation system(s) must be maintained for the operational life of the project except where otherwise agreed to by EPA Victoria.</p>	D&C Contractor
CL4	<p><b>Landfill Gas Management Plan (Construction)</b></p> <p>Prior to the commencement of works (other than preparatory works defined in the Incorporated Document), a Landfill Gas Management Plan (Construction) must be prepared (EPR EM2). The plan must be developed in consultation with EPA Victoria and in accordance with relevant regulations, standards and best practice guidelines including, but not limited to, <i>Best Practice Environmental Management: Siting, design, operation and rehabilitation of landfills</i> (EPA Victoria 2015) and <i>Workplace Exposure Standards for Airborne Contaminants</i> (Safe Work 2013).</p> <p>The plan must detail specific monitoring and risk mitigation requirements that are to be implemented during the construction phase to reduce landfill gas-related risks to neighbouring land users, site workers, plant and equipment.</p> <p>The Landfill Gas Management Plan must:</p> <ul style="list-style-type: none"> <li>• reference applicable regulatory requirements</li> <li>• detail the nature and extent of contamination</li> <li>• include details of design and construction requirements for passive landfill gas and venting systems</li> <li>• define roles and responsibilities</li> <li>• detail landfill gas monitoring and reporting requirements</li> <li>• include monitoring requirements for explosive atmospheres and fire risks during construction</li> <li>• include guidelines for work areas which constitute confined spaces, and</li> </ul>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
	<ul style="list-style-type: none"> <li>include requirements for use of spark and flame emitting equipment, tools or plant during construction works.</li> </ul>	
CL5	<p><b>Landfill Gas Management Plan (Operation)</b></p> <p>Prior to the completion of construction of the passive landfill gas capture and venting system (EPR CL3) a monitoring and management program for surface, sub-surface and internal/underground voids, pits and service trenches will be specified within a Landfill Gas Management Plan (Operation). The plan must be developed in consultation with EPA Victoria and assess ongoing risk associated with landfill gas generated by the former landfill(s) in the northern portion of the project area.</p> <p>The plan must outline procedures for any future works within the project area, means of protection of in-ground gas protection/mitigation systems and monitoring and management requirements.</p>	D&C Contractor, VicRoads
CL6	<p><b>PFAS Management Plan</b></p> <p>Prior to the commencement of works (other than preparatory works referred to in the Incorporated Document), a site-specific PFAS management plan must be prepared in consultation with EPA Victoria in accordance with EPA Publication 1669.2. <i>Interim position statement on PFAS</i> (EPA Victoria 2018) and the Heads of EPAs Australia and New Zealand <i>PFAS National Environmental Management Plan</i> (PFAS NEMP) (HEPA2018).</p>	D&C Contractor
CL7	<p><b>Landfill material</b></p> <p>Structures that penetrate the landfill must be designed and constructed to avoid the creation of additional pathways for contaminants to move from leachate to surrounding groundwater and minimise the need for landfill material to be removed-in consultation with the EPA.</p> <p>The structures must be designed to avoid impacts on groundwater flows and groundwater quality, including consideration of vertical hydraulic gradients and lateral spread of contamination taking into account the direction of groundwater flow.</p>	D&C Contractor
E1	<p><b>Business Disruption Plan</b></p> <p>During design and construction, impacts on local businesses must be minimised through the preparation and implementation of a Business Disruption Plan. The Business Disruption Plan will be consistent with an approved Community and Stakeholder Engagement Management Plan (EPR S1) and include:</p> <ul style="list-style-type: none"> <li>transport planning prior to road closures to minimise impacts on business access and parking (EPR T2)</li> <li>a process for communication with traders and businesses</li> <li>management of potential amenity impacts during construction and operation (EPR AQ1, AQ2, NV2, and NV3).</li> </ul>	D&C Contractor
E2	<p><b>Utility assets</b></p> <p>Through detailed design and construction, the impacts on utility assets must be minimised to the extent practicable including, but not limited to:</p> <ul style="list-style-type: none"> <li>stormwater and sewer assets</li> <li>electricity transmission assets (overhead and underground lines)</li> <li>gas and fuel pipelines</li> <li>communications lines (e.g. fibre optic cables).</li> </ul> <p>If relocations are required to facilitate the project, utility assets must be protected and, where required, modified to the satisfaction of the asset owners.</p>	D&C Contractor
GG1	<p><b>Greenhouse gas monitoring and reporting</b></p> <p>Minimise and manage greenhouse gas emissions (GHG) arising from construction, operation and maintenance through the integration of sustainable design practices.</p> <p>Prior to commencement of works, a Sustainability Management Plan (SMP) which</p>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
	includes mandatory actions to monitor and report construction phase greenhouse gas emissions and to benchmark predicted operational phase greenhouse emissions in accordance with Mat-1 and Ene-1 credits of the Infrastructure Sustainability (IS) rating tool (v1.2).	
GG2	<p><b>Emissions reduction</b></p> <p>The materials and equipment for the project must be selected with the intent to reduce the project associated GHG emissions during the construction and operational phases.</p> <p>A verifiable improvement in project GHG emissions must be achieved by achieving a minimum of Mat-1 (Level 1) and Ene-1 (Level 2) credits of the Infrastructure Sustainability (IS) rating tool (v1.2).</p> <p>A minimum of 20% of construction phase energy must be purchased from an accredited GreenPower product.</p>	D&C Contractor
H1	<p><b>Cultural Heritage Management Plan</b></p> <p>Comply with and implement the Cultural Heritage Management Plan (CHMP) approved under the <i>Aboriginal Heritage Act 2006</i>.</p>	D&C Contractor
H2	<p><b>Unidentified non-Aboriginal historical archaeological sites</b></p> <p>An archaeological discovery protocol must be prepared that specifies measures to avoid and minimise impacts on any previously unidentified historical archaeological sites and values discovered during construction. The management protocol must be consistent with the requirements of the <i>Heritage Act 2017</i> and must be developed in consultation with Heritage Victoria. The protocol must include procedures for ceasing work if human remains or archaeological artefacts are discovered, notifying Heritage Victoria of the find, obtaining consent to deal with the remains or artefact, and dealing with the remains or artefact in accordance with the consent.</p>	D&C Contractor
H3	<p><b>Non-Aboriginal heritage sites</b></p> <p>The project must be designed to avoid damage to the Braeside Park Precinct brick buildings.</p> <p>Prior to the commencement of works that have the potential to impact on heritage structures or places, appropriate heritage protection plans must be developed for inclusion in the CEMP and physical protection measures must be implemented to avoid or mitigate potential impacts to the heritage assets.</p>	D&C Contractor
LV1	<p><b>Landscape and urban design</b></p> <p>Landscape and urban design plans must be developed prior to the commencement of works (other than preparatory works referred to in the Incorporated Document) and must respond to or be based on relevant standards and the best practice principles of the:</p> <ul style="list-style-type: none"> <li>• Landscape Concept Plan (VicRoads, August 2018) and Landscape and Urban Design Strategy (Aspect Studios, September 2018) for the project</li> <li>• Good Design Principles - Transport (OVGA 2015)</li> <li>• Urban Design Charter for Victoria, and</li> <li>• Urban Design Guidelines for Victoria (DELWP 2017).</li> </ul> <p>The landscape and urban design plans must be prepared by suitably qualified professionals in consultation with relevant stakeholders, including Kingston City Council, and must incorporate, where practicable, high quality integrated mitigation measures to minimise the landscape and visual impact associated with the project, including in respect of:</p> <ul style="list-style-type: none"> <li>• open spaces and recreational spaces</li> <li>• bridges and structures</li> <li>• significant views from the public domain</li> <li>• community facilities</li> <li>• residential interfaces</li> </ul>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
	<ul style="list-style-type: none"> <li>• industrial interfaces, and</li> <li>• heritage assets.</li> </ul> <p>The landscape and urban design plans must:</p> <ul style="list-style-type: none"> <li>• include vegetation screening appropriate for visually impacted community spaces, including residential areas and public open spaces</li> <li>• in high traffic areas and at sensitive interfaces make use of mature tree stock (15 litre) where appropriate in combination with tube stock and advanced tree plantings to reduce the initial visual impacts</li> <li>• denser planting of a 15-metre-wide band of trees (small and medium size) at areas where residences are within 35 metres of the roadway with exception of the roadside south of Springvale Road between chainage (CH) CH30,900 to CH31,200 (<b>Appendix 1</b>)</li> <li>• ensure that visually apparent elements (including acoustic and other barriers, bridges and abutments) are the subject of an integrated landscape and urban design process</li> <li>• minimise overshadowing by acoustic barriers of residential properties</li> <li>• utilise colours and materials derived from the existing landscape and ecological environment</li> <li>• make use of appropriate ecologically sensitive indigenous planting</li> <li>• consider existing landscape character and sensitivities</li> <li>• enhance key gateway streetscapes</li> <li>• maintain and enhance existing pedestrian connections, where practicable, and ensure that the underpass at Braeside Park achieves best practice urban design principles</li> <li>• be developed in consultation with appropriate Traditional Owner groups to provide direction on appropriate landscape typologies, land management practices and principles, and</li> <li>• incorporate requirements of EPR LV2 and EPR LV3.</li> </ul> <p>Landscaping and urban design for the project in accordance with the landscape and urban design plans must be implemented and maintained (EPR LV7).</p>	
LV2	<p><b>Crime prevention through environmental design</b></p> <p>Landscape and urban design plans must protect and, where practicable, improve access to, and amenity for, potentially affected residents, open spaces, pedestrian and cyclist networks, social and community infrastructure and commercial facilities, whilst meeting the requirements of EPR B2. This includes implementing the principles and guidelines of <i>Crime Prevention Through Environmental Design (CPTED)</i> and <i>Urban Design Guidelines for Victoria</i> (DELWP 2017) and maximising passive surveillance levels as far as practicable.</p>	D&C Contractor
LV3	<p><b>Reinstatement works</b></p> <p>Within 12 months of the commencement of operation, the public open spaces, vegetation cover and facilities disturbed by temporary works must be reinstated to the reasonable satisfaction of the relevant land manager.</p>	D&C Contractor
LV4	<p><b>Lighting (operation)</b></p> <p>All lighting of permanent structures must be designed to minimise light spillage and protect the amenity of adjacent land uses to the extent practicable. Lighting in sensitive areas around wetlands and Braeside Park must also comply with EPR B2.</p>	D&C Contractor, VicRoads
LV5	<p><b>Light spillage (construction)</b></p> <p>All lighting during construction must be managed in such a way as to minimise light spill to surrounding residential land uses, sensitive areas including wetlands and Braeside Park, and neighbourhoods. The strategies and techniques to do so must be included in the CEMP.</p>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
LV6	<p><b>Tree removal</b></p> <p>Minimise the removal of mature trees, particularly large amenity trees and those within or connected to public open spaces, that are not currently protected by no-go zones as described in EPR B3.</p>	D&C Contractor
LV7	<p><b>Landscape management strategy</b></p> <p>A landscape management strategy must be developed and implemented to ensure healthy growth of planted vegetation prior to road opening. The strategy will include watering and weed management that ensures establishment to include a monitoring program.</p> <ul style="list-style-type: none"> <li>The landscape plan must ensure the reinstatement of soils is of sufficient quality and volumes to support the long-term viability of replacement plantings. Ensure adequate soil moisture in tree root zones especially during their establishment stage</li> <li>Employ water sensitive urban design principles (WSUD) where possible</li> <li>The landscape plan must specify the locations where installations of advanced trees are indicated to minimise impact of tree removal.</li> </ul> <p>The landscape plan must identify locations for planting prior to construction works where feasible to do so.</p>	D&C Contractor
LV8	<p><b>Independent urban design review panel</b></p> <p>A suitably qualified Independent Urban Design Review Panel must be appointed for the project by MTIA. The landscape and urban design plans and Landscape Management Strategy must be referred to the Independent Urban Design Review Panel for review against the relevant EPRs and project objectives.</p>	D&C Contractor
NV1	<p><b>Noise and vibration (design)</b></p> <p>Noise and vibration impacts on residents during operation must be minimised by the inclusion of appropriate noise attenuation measures and road surface specifications in the design. Road traffic noise emissions must comply with the Project Objective Noise Levels:</p> <ul style="list-style-type: none"> <li>63dBA <math>L_{10, 18Hr}</math> for the new bypass, and</li> <li>68dBA <math>L_{10, 18Hr}</math> for the Mornington Peninsula Freeway works</li> <li>For noise-sensitive receivers as defined in the VicRoads <i>Traffic Noise Reduction Policy</i>.</li> </ul> <p>Design year 2031 must be used for the purpose of traffic noise modelling as part of the detailed design development.</p>	D&C Contractor
NV2	<p><b>Construction Noise and Vibration Management Plan</b></p> <p>A Construction Noise and Vibration Management Plan (CNVMP) prepared in consultation with EPA Victoria must be implemented during construction to:</p> <ul style="list-style-type: none"> <li>manage noise in accordance with EPA Publication 1254 Noise Control Guidelines, EPA Publication 480 Environmental guidelines for major construction sites and VicRoads Noise Guidelines, unless otherwise specified in the CNVMP</li> <li>include measures to manage vibration in accordance with human response to vibration guideline targets (BS 6472 <i>Evaluation of human exposure to vibration in buildings (1-80Hz)</i>) and structural damage targets (DIN 4150 <i>Structural vibration - Effects of vibration on structures</i>).</li> </ul> <p>The CNVMP must include requirements for substituting high noise or vibration construction plant or processes with a lower noise or vibration option. The CNVMP must make provision for <i>ad hoc</i>, targeted and routine noise and vibration monitoring to inform management and mitigation. The CNVMP should highlight potential unavoidable night works and consult with relevant stakeholders, including EPA, prior to construction.</p> <p>The CNVMP must include construction noise guideline targets for residential and non-residential receivers to enable a quantitative assessment of construction noise impacts to be undertaken. The guideline targets should be developed in consultation with the EPA.</p>	D&C Contractor

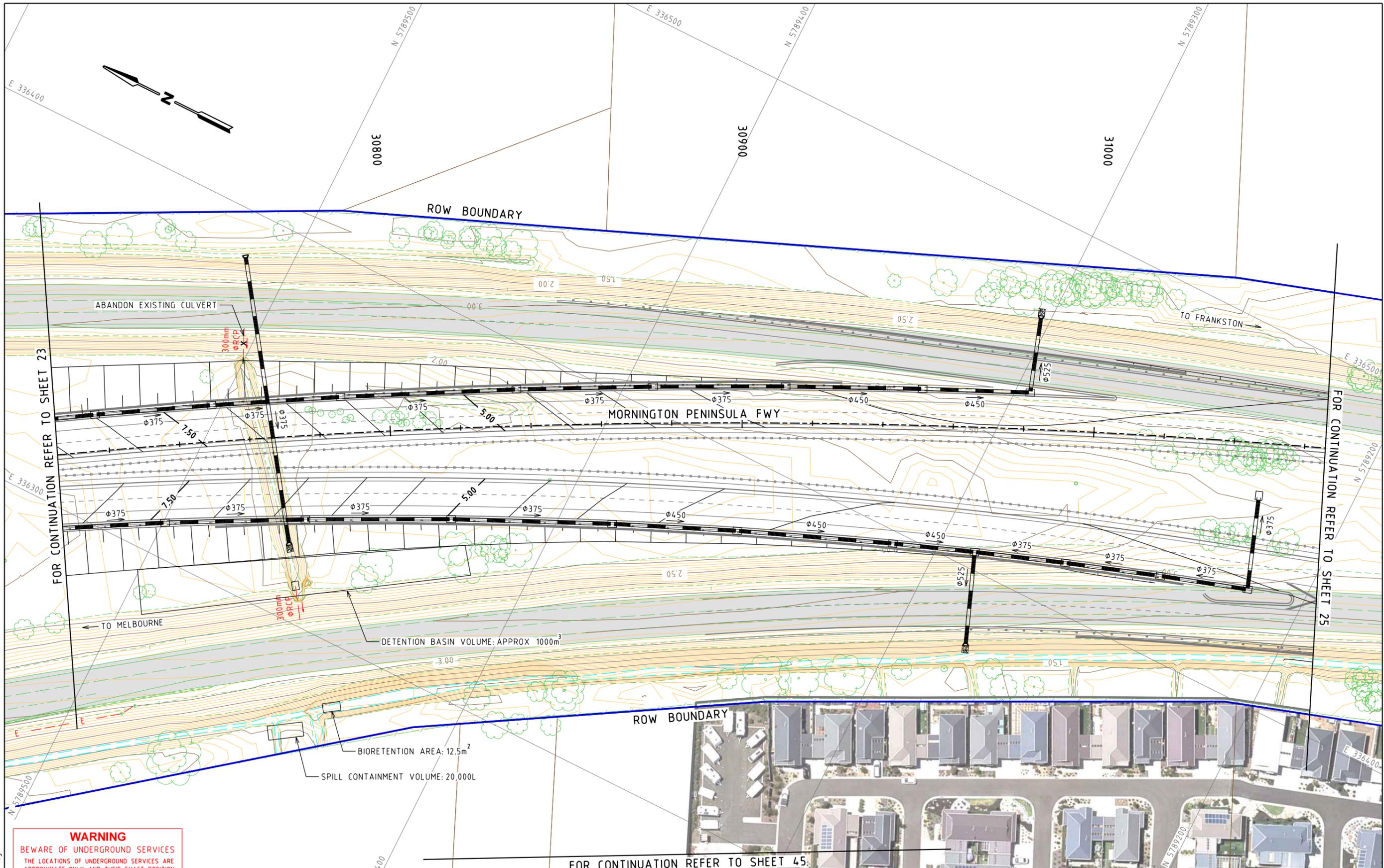
No.	Environmental Performance Requirements	Implementation by
	Construction noise guideline targets for day, evening and night-time activities should be specified. If construction noise is predicted to or does exceed the guideline targets then management actions as specified in the CNVMP must be implemented.	
NV3	<p><b>Traffic noise verification</b></p> <p>Traffic noise must be measured between 6 to 12 months after opening of the project, in accordance with the VicRoads <i>Traffic Noise Measurement Requirements for Acoustic Consultants – September 2011</i>, to verify conformance with the external traffic noise performance requirements set out in EPR NV1. Remedial action must be completed by Final Completion (at the completion of the Defects Liability Period) if the performance requirements set out in EPR NV1 are not met.</p>	D&C Contractor
S1	<p><b>Community and Stakeholder Engagement Plan</b></p> <p>A Community and Stakeholder Engagement Plan must be prepared in consultation with Kingston City Council and Greater Dandenong City Council prior to the commencement of works (other than preparatory works referred to in the Incorporated Document). The preparation of the plan must give consideration to relevant guidelines and the Victorian Auditor General Office: <i>Better Practice Guide: Public Participation in Government Decision Making</i>.</p> <p>The Community and Stakeholder Engagement Plan must:</p> <ul style="list-style-type: none"> <li>• identify all project activities that potentially impact on community, land owners and business operations, and provide for well-coordinated communication and engagement processes in relation to each activity</li> <li>• outline key messages</li> <li>• ensure that project communications and engagement activities reflect the needs and profiles of local communities</li> <li>• ensure that consultation addresses the needs of vulnerable groups that will be impacted by the project, such as the elderly, socio-economically disadvantaged groups and children</li> <li>• address the needs of users of community facilities impacted by the project</li> <li>• set out processes and measures to provide sufficient prior notice to key stakeholders and other potentially affected stakeholders of construction activities (including any staged works, early works, or out of hours works), significant milestones, changed traffic conditions, interruptions to utility services, changed access and parking conditions, and periods of predicted high noise and vibration activities, including contact details for complaints and enquiries</li> <li>• provide for any interested stakeholder to register their contact details to ensure that they are automatically advised of planned construction activities, project progress, mitigation measures and intended reinstatement measures, where applicable include a complaints management process, as specified in EPR EM2.</li> </ul>	D&C Contractor
S2	<p><b>Recreational facilities</b></p> <p>Where construction works have a direct impact on the use and enjoyment of recreational facilities, appropriate management measures must be implemented in cooperation with the relevant land manager(s) and affected stakeholder organisations. These measures would include arrangements for the provision of alternative facilities, where required, for the period of disruption.</p>	D&C Contractor
T1	<p><b>Intersection and freeway design and performance</b></p> <p>Intersections and freeway facilities that are affected and/or proposed by the project will be designed and constructed to provide safe vehicle movements to the satisfaction of the responsible road management authority. The design of intersections and the freeway must meet VicRoads' design standards with analysis undertaken to ensure the proposed configuration will achieve acceptable operational performance.</p> <p>Road Safety Audits and/or Safe System Assessment in accordance with Austroads guidelines will be undertaken to maximise the safety potential of the project.</p>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
T2	<p><b>Transport Management Plan</b></p> <p>Prior to the commencement of works, TMP(s) must be developed and implemented to minimise disruption (to the extent practicable) to affected local land uses, traffic, on-road public transport, pedestrian and bicycle movements and existing public facilities during all stages of construction. The plan(s) will comply with relevant standards and must be developed in consultation with Kingston City Council, Greater Dandenong City Council, VicRoads and public transport providers and be informed and supported by an appropriate level of transport analysis.</p> <p>The plan(s) must include:</p> <ul style="list-style-type: none"> <li>• a program to monitor impacts of construction activities to all modes of active and passive transport. Where monitoring identifies adverse impacts, practicable mitigation measures must be developed and implemented</li> <li>• consideration of cumulative impacts of other major projects operating concurrently in the local area</li> <li>• identify the route options for construction vehicles (including haulage of spoil and other heavy materials to and from the construction site) travelling to and from the project construction site, recognising sensitive receptors, and prioritising the use of arterial roads</li> <li>• development of suitable measures to ensure emergency service access is not inhibited as a result of project construction activities (in consultation with emergency services)</li> <li>• provision for the minimisation of impacts on existing connectivity for pedestrians, cyclists, public transport and road vehicles as a result of construction, including the identification of alternative routes for pedestrians and cyclists and other measures to maintain connectivity and safety for pedestrians and cyclists</li> <li>• management of any temporary or partial closure of roads and traffic lanes, including provision for suitable routes for vehicles, cyclists and pedestrians, to maintain connectivity for road and footpath users</li> <li>• restrictions to the number of local roads to be used for construction-related transportation to minimise impacts on amenity, in consultation with the relevant road authorities, including at Edithvale Road (EPR B4)</li> <li>• reinstatement of access to open space, community facilities, commercial premises and dwellings if disrupted, as soon as practicable, and to an equivalent standard</li> <li>• provision for safe access points to laydown areas and site compounds</li> <li>• normal working hours 7am to 7pm except where work outside those hours is necessary</li> <li>• a communications strategy to advise affected users, potentially affected users, relevant stakeholders and the relevant road authorities of any changes to transport conditions in accordance with the Community and Stakeholder Engagement Management Plan (EPR S1).</li> </ul> <p>The plan must include specific measures for discrete components or stages of the works having the potential to impact on roads, shared use paths, bicycle paths, footpaths or public transport infrastructure.</p>	D&C Contractor
T3	<p><b>Vehicle and pedestrian access</b></p> <p>Where formal vehicle and pedestrian access are altered during construction, such access must be replaced in accordance with relevant road design standards, as soon as practicable.</p>	D&C Contractor
T4	<p><b>Traffic validation</b></p> <p>Undertake a monitoring program to measure actual traffic volumes and road performance relative to model predictions presented in the EES. The results must be published on a publicly accessible website.</p>	D&C Contractor
W1	<p><b>Water body health</b></p> <p>During design, construction and operation, impacts on surface water quality and flow must be minimised through adoption of measures to:</p>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
	<ul style="list-style-type: none"> <li>minimise changes in water flows and adverse changes in water quality to and within wetland areas; and</li> <li>avoid an increase in discharge of pollutant loading (to higher than existing conditions levels) on beneficial uses due to the construction and operation of the project in accordance with CSIRO <i>Best Practice Environmental Management Guidelines for Urban Stormwater (1999)</i> and Water Sensitive Road Design (WSRD).</li> </ul> <p>In addition, the project must incorporate spill containment at the outfalls which pose a high risk to sensitive receptors, including Waterways Wetlands, Woodlands Wetlands and Edithvale Wetlands and the waterway system including Mordialloc Creek. The spill containment must be designed, implemented and maintained in accordance with relevant guidelines and standards.</p> <p>Design specific maintenance requirements relating to water body health, (that do not form part of standard VicRoads maintenance requirements), must be included in the Water Asset Management Plan (EPR W7).</p> <p>The design of surface water control measures for the project as a whole must comply with the VicRoads Integrated Water Management Guidelines {2013} and CSIRO <i>Best Practice Environmental Management Guidelines for Urban Stormwater (1999)</i>.</p> <p>This design and mitigation measures should ensure the hydrological characteristics of the Edithvale Wetlands are maintained to within acceptable limits, to minimise risk to its ecological values.</p> <p>Mitigation measures should include the provision of adequate on reservation retention capacity for stormwater from the impervious surfaces associated with the freeway, so that resultant increases in water entering the Edithvale Wetlands are appropriately reduced and attenuated.</p> <p>The design of surface water control measures for the project should be in consultation with Melbourne Water as the manager of the Edithvale Wetlands Ramsar site.</p>	
W2	<p><b>Flood protection (operation)</b></p> <p>Changes to flood behaviour resulting from the project must meet the requirements of Melbourne Water's guideline</p> <p><i>"Melbourne Water standards for infrastructure in flood prone areas" to the satisfaction of Melbourne Water</i>". Consult with Melbourne Water through the project design process to consider the risk of flooding in the event of a flood larger than the 1% per cent AEP design flood or blockage.</p> <p>Design-specific maintenance requirements relating to floodwater, and that do not form part of standard VicRoads maintenance requirements, must be included in the Water Asset Management Plan (EPR W7).</p>	D&C Contractor, Melbourne Water
W3	<p><b>Surface water management (construction)</b></p> <p>Protect local waterways and wetlands by applying best practice sedimentation and pollution control measures in accordance with EPA Victoria publication 480 <i>Environmental Guidelines for Major Construction Sites</i> and EPA publication 275 <i>Construction techniques for sediment pollution control</i> through the Construction Environmental Management Plan(s) and other plans. Implement a water collection and treatment system to ensure that stormwater discharges comply with the State Environment Protection Policy (Waters) 2018 and Melbourne Water performance criteria. Such plans and systems should be prepared in consultation with relevant authorities before the commencement of works.</p>	D&C Contractor
W4	<p><b>Flood protection (construction)</b></p> <p>During construction, the requirements of the <i>"Melbourne Water standards for infrastructure in flood prone areas"</i> must be complied with. Measures must be implemented to the satisfaction of Melbourne Water and in consultation with any other relevant drainage authority, to ensure that temporary construction activities do not increase flood risks (including flood levels, flows and velocities) to the surrounding areas. A flood management plan must be developed in consultation with and not objected by</p>	D&C Contractor

No.	Environmental Performance Requirements	Implementation by
	Melbourne Water for any temporary works.	
W5	<p><b>Water Management and Monitoring Plan</b></p> <p>A Water Management and Monitoring Plan (WMMP) must be prepared in consultation with EPA Victoria and relevant water authorities, and be implemented prior to construction, during construction and for five years following opening the project to the public. The WMMP must incorporate both surface and groundwater monitoring.</p> <p>Monitoring should commence prior to the commencement of works (other than preparatory works referred to in the Incorporated Document) to establish baseline conditions.</p> <p>The WMMP must incorporate baseline data collected to date and additional baseline data as required to address key issues including impacts of embankments and piling on groundwater.</p> <p>Incorporating the baseline data, the WMMP must include:</p> <ul style="list-style-type: none"> <li>• detail of the monitoring parameters, including the frequency and location of surface water monitoring points and groundwater monitoring bores</li> <li>• monitoring parameters should include, but not be limited to, sediment, nutrients and toxicants</li> <li>• specific trigger levels (water quality in surface water bodies and groundwater bores) and details of contingency plans in the case trigger levels are exceeded</li> <li>• detailed reporting requirements</li> <li>• roles and responsibilities, not limited to: <ul style="list-style-type: none"> <li>- the owner of monitoring network assets</li> <li>- the manager of monitoring network assets and results</li> <li>- the party (or parties) undertaking monitoring (prior to construction, during construction and for five years following opening).</li> </ul> </li> </ul> <p>The groundwater component of the WMMP must include assessment and, if necessary, mitigation of the following impacts:</p> <ul style="list-style-type: none"> <li>• the impact of the embankments on groundwater levels, flow and quality</li> <li>• the impact of piling on groundwater levels, flows and quality.</li> </ul>	D&C Contractor
W6	<p><b>Surface water management (design and operation)</b></p> <p>The volume, peak flow and quality of surface water discharges during operation must have no adverse impact to the drainage network capacities in consultation with Melbourne Water, Kingston City Council and Greater Dandenong City Council, as appropriate.</p>	D&C Contractor
W7	<p><b>Water Asset Management Plan (Operation)</b></p> <p>Prior to completion of construction, an Asset Management Plan must be established to ensure the ongoing effectiveness of works to mitigate impacts on surface water, including drainage culverts and bioretention systems.</p> <p>The plan must specify requirements in relation to management, monitoring and reporting.</p>	D&C Contractor

**Appendix 1: EPR LV1 map of chainage CH30,900 to CH31,200**



**WARNING**  
 BEWARE OF UNDERGROUND SERVICES  
 THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

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ISSUE	APP'D	DATE	AMENDMENT
A	S.B.	04.07.18	ISSUE FOR TENDER
B			
C			
D			
E			

GENERAL NOTES

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WSP DRAWING NO.  
2135645A-26-CIV-3024

DESIGNED  
M. GRIBLER  
04.07.18

APPROVED  
S. BONG  
04.07.18

CAT: PS101340\_2135645A  
 PROJ: MORDIALLOC FREEWAY  
 FILE: 2135645A-26-CIV-3024.dgn

SCALE OF METRES  
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**ISSUE FOR TENDER**

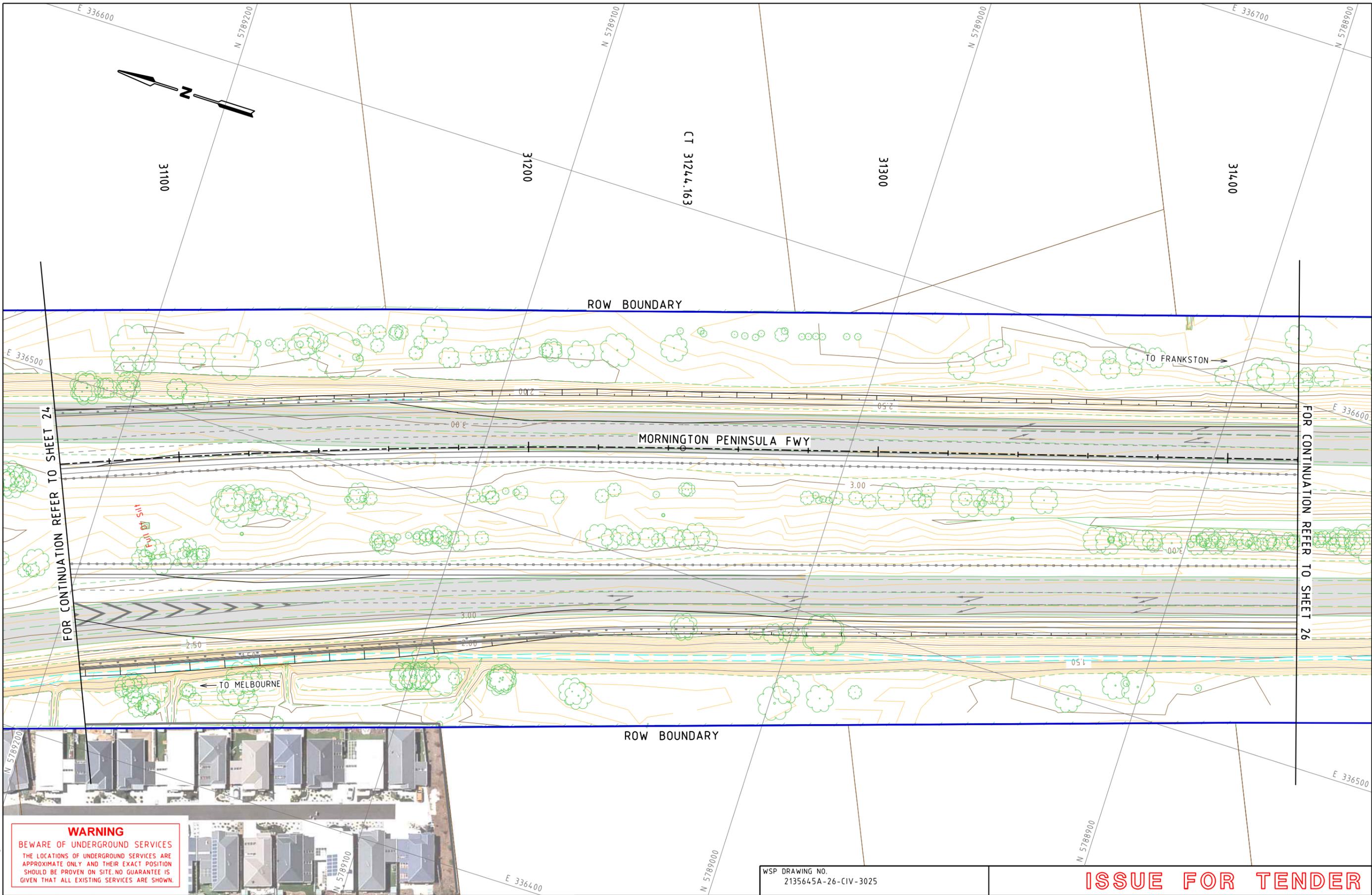
**MORDIALLOC FREEWAY**  
 DINGLEY BYPASS TO THAMES PROMENADE  
 CH 30700 - CH 31060  
 DRAINAGE PLAN

FILE NO.	CONTRACT NO.	SHEET NO.	DRAWING NO.	ISSUE
	9680	24	923614	A

FOR CONTINUATION REFER TO SHEET 45

FOR CONTINUATION REFER TO SHEET 23

FOR CONTINUATION REFER TO SHEET 25



FOR CONTINUATION REFER TO SHEET 24

FOR CONTINUATION REFER TO SHEET 26

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WSP DRAWING NO.  
2135645A-26-CIV-3025

DESIGNED  
M. GRIBLER  
04.07.18

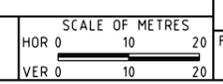
APPROVED  
S. BONG  
04.07.18

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 PROJ: MORDIALLOC FREEWAY  
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**ISSUE FOR TENDER**

**MORDIALLOC FREEWAY**  
 DINGLEY BYPASS TO THAMES PROMENADE  
 CH 31060 - CH 31420  
 DRAINAGE PLAN

FILE NO.	CONTRACT NO.	SHEET NO.	DRAWING NO.	ISSUE
	9680	25	923615	A



ISSUE	APP'D	DATE	AMENDMENT
A	S.B.	04.07.18	ISSUE FOR TENDER

GENERAL NOTES

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