



23 Environmental management framework

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23.1 INTRODUCTION

This chapter presents the Environmental Management Framework (EMF) that has been developed for the Mordialloc Bypass (Freeway) (the project). The EMF provides a transparent and integrated governance framework for managing the environmental effects of the project in the context of applicable environmental laws and statutory approvals required for the project. The EMF includes the proposed Environmental Performance Requirements (EPRs) that define the project-wide environmental outcomes that must be achieved during the detailed design, construction and operational phases of the project.

The Mordialloc Bypass (Freeway) Incorporated Document will be included in each of the relevant planning schemes governing development of the project and will require the preparation and implementation of an EMF, which shall be prepared to the satisfaction of the Minister for Planning. The EMF is to be consistent with the EMF presented in this chapter, except where otherwise agreed to by the Minister, including to give effect to the outcomes of the environmental effects statement (EES) assessment process.

The approved EMF will contain the final environmental performance requirements (EPRs) governing development and implementation of the project. Compliance with the approved EMF and EPRs will be mandated by the conditions of the Incorporated Document. Compliance will also be mandated and enforced by the Major Road Projects Authority (MRPA) through the contractual arrangements for delivery of the project following project approval. Responsibility for compliance with the approved EMF and EPRs during the operational phase will rest with VicRoads, as the Victorian statutory authority responsible for the management of all non-commercial arterial roads and freeways.

The EPRs contained in this chapter have been developed through the EES to address identified risks and impacts to achieve acceptable environmental outcomes. The performance-based approach taken by the EPRs aims to achieve environmental outcomes that provide a net community benefit, while allowing flexibility in the way the EPRs are achieved. This approach enables consideration of design alternatives in detailed design, fostering innovation in ongoing design development and project implementation, without compromising on the environmental outcomes to be achieved.

The EMF outlines clear accountabilities for the delivery of the EPRs and compliance with all relevant environmental laws, approvals, approval conditions and environmental management plans and procedures to ensure that the environmental effects of the project and any hazards associated with its construction and operation are effectively managed.

The EMF also specifies the processes to be followed in the preparation, review, approval and implementation of environmental management plans and procedures, including the Construction Environmental Management Plan (CEMP) and more detailed environmental management plans. The EMF also provides for the regular review and updating of environmental management plans and procedures as well as independent monitoring, auditing and reporting of compliance.

Development of this EMF has been guided by the EES Scoping Requirements, relevant legislation, policy and guidelines, and has been informed by the specialist environmental impact assessment studies completed for the EES.

Implementation of this EMF and EPRs would be effective in controlling adverse effects associated with development and operation of the project. Implementation of the EMF and EPRs in the manner proposed would also support beneficial environmental outcomes to be achieved by the project. The EMF is clear, transparent, robust and comprehensive with sound governance and accountability arrangements.

The EMF will be updated and re-assessed by the Minister for Planning if traffic lanes are proposed to be added to the project in the future. This requirement is stipulated in the Planning Scheme Amendment (via the Incorporated Document and associated EPR EM1).

23.2 SCOPING REQUIREMENTS

The EES Scoping Requirements relevant to the EMF require the EES to “*outline a transparent environmental management framework (EMF) with clear accountabilities for managing and monitoring environmental effects and hazards associated with construction and operation phases of the project in order to achieve acceptable environmental outcomes*”.

Section 5 of the EES Scoping Requirements sets out the requirements for the project’s Environmental Management Framework as follows:

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

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

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

The EMF should outline:

- *the relevant environmental management plans for construction and operation phases of the project; a program for community consultation, stakeholder engagement and communications during the construction and operation of the project, including opportunities for local stakeholders to engage with the proponent to seek responses to issues that might arise when the project is undertaken.*

23.3 STATUTORY CONTEXT

Development of the project would be authorised and regulated by the Mordialloc Bypass (Freeway) Incorporated Document to be incorporated into the Kingston Planning Scheme and Greater Dandenong Planning Scheme, and by the approval of the controlled action under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The Incorporated Document will set out the requirements for preparation of the EMF to the satisfaction of the Minister for Planning and will require the EMF to include the final EPRs for the project.

The EMF will be consistent with the EMF presented in this chapter except where otherwise agreed to by the Minister for Planning including to give effect to the outcomes of the EES assessment process. The Incorporated Document will require that the EMF be prepared to the satisfaction of the Minister for Planning before commencement of the project (excluding preparatory works), and for the project to be carried out in accordance with the EMF.

The EPBC approval will impose specific conditions relevant to those matters of national environmental significance which the project may affect. There are a range of other approvals required for the project as set out in Table 23.2.

The EMF provides a robust environmental management framework to ensure that the conditions of all statutory approvals required for the project are adhered to during development and implementation of the project.

23.4 PURPOSE OF THE EMF

This EMF provides a transparent and integrated governance framework to manage the environmental effects of the project.

The objectives of the EMF are to:

- establish a framework to ensure compliance with statutory requirements, approvals, approval conditions and minimise environmental risks
- set out the environmental outcomes to be achieved during the detailed design, construction and operation of the project
- ensure accountabilities are identified for managing and monitoring environmental effects and hazards associated with implementation of the project.

The EMF requires the contractor constructing the project to implement an Environmental Management System (EMS) certified to AS/NZS ISO 14001: 2015 *Environmental management systems – Requirements with guidance for use*; and to comply with applicable legislation, policy and guidelines. The contractor's EMS describes the environmental management processes to be utilised during the design and construction phases of the project and details the procedures to be adopted to ensure compliance with applicable environmental laws, the EPRs and approval conditions relevant to the project. The EMS establishes the management system framework from within which the CEMP and other environmental management plans are prepared and implemented.

Observation, surveillance, auditing and reporting of compliance with the EMF is a key component of the environmental management framework to ensure that acceptable environmental outcomes are achieved by the project. Section 23.11 (Performance management) provides detail on the environmental management plans and ongoing monitoring, auditing and report of compliance with their implementation.

The EMF will be updated and re-assessed by the Minister for Planning if traffic lanes are proposed to be added to the project in the future. This requirement is stipulated in the Planning Scheme Amendment (via the Incorporated Document and associated EPR EM1).

23.5 CONTRACT STRUCTURE

The project will be delivered through a Design and Construct (D&C) contract model. Under this model, the Victorian Government (represented by MRPA), with support from its technical advisers, would prepare a preliminary design and contract specification incorporating the requirements of the EMF and EPRs as assessed by the Minister for Planning, as well as the requirements of each of the key approvals.

A contractor would be appointed to complete the detailed design and proceed with construction. This model ensures the Contractor is responsible for managing both the design and the construction process – creating a single point of accountability for design and construction of the project - in accordance with the outcomes of the EES assessment process and key approvals.

The D&C contract specification would also require the contractor to prepare an Environmental Management Strategy consistent with the approved EMF demonstrating how the contractor is to implement the EMF and EPRs in the design and construction of the project. This would need to be verified by an independent environmental auditor to ensure compliance with the contract specification and to verify that the Environmental Management Strategy is suitable for approval by MRPA.

The contract would also include requirements to prepare a range of environmental management plans and procedures, including a Construction Environmental Management Plan (CEMP) and separate Environmental Management Plans (EMPs) for the management of discrete issues, activities or locations. These would be detailed plans governing the management of all project activities in a manner that meets, as a minimum, the requirements of all environmental laws, approvals, approval conditions, the Environmental Management Strategy, and approved EMF and EPRs.

The contractor would be required to appoint an environmental auditor to carry out audits and surveillance of its environmental management systems and environmental compliance and produce audit reports. Specific requirements for MRPA and the contractor are detailed in Section 23.7 (Roles and responsibilities).

23.6 GOVERNANCE FRAMEWORK

The environmental governance framework for the project is generally shown in Figure 23.1.

MRPA is responsible for preparation of the EES and obtaining key statutory approvals for the project, namely the Planning Scheme Amendment, approved Cultural Heritage Management Plan and approval under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

MRPA is also responsible for preparation of the final EMF and EPRs following the EES assessment and approvals processes and obtaining the approval of the Minister for Planning under the Incorporated Document. The EMF (including EPRs) will need to be prepared to the satisfaction of the Minister for Planning prior to the commencement of any works, excluding preparatory works permitted by the Incorporated Document.

Following entry into the D&C contract for the design and construction of the project, MRPA will be responsible for ensuring the requirements of these approvals are implemented, including through approval of the contractor's Environmental Management Strategy which is to demonstrate how the contractor will implement the approved EMF and EPRs in the design and construction of the project.

The contractor's Environmental Management Strategy will be required to incorporate requirements for the maintenance of an environmental management system that is AS/NZS ISO 14001: 2015 certified. The contractor is required to comply with the conditions of the key approvals and obtain any additional licences or permits that may be required for construction of the project.

The CEMP and separate Environmental Management Plans (EMPs) to be prepared for the management of discrete issues, activities or locations including in response to the EPRs will also need to be prepared by the contractor and submitted to MRPA for approval, prior to the commencement of works relevant to the plan. The EMS, CEMP and EMPs prepared by the contractor are each to be audited for compliance with the contract, the EMF and approval conditions by an independent environmental auditor prior to submission to MRPA for approval.

Regular compliance audits with the approved environmental management plans will be undertaken by the independent environmental auditor and compliance reports submitted to MRPA. Regular compliance reports will also be submitted to the Minister for Planning and other statutory approval authorities as appropriate. In addition to the audit requirements of the contractor, MRPA employs a risk-based audit and surveillance system to ensure that all environmental risks are appropriately managed and that the CEMP is implemented.

An Operations Environmental Management Plan (OEMP) will apply to the operational phase of the project. It shall be prepared by the contractor as part of the Operations, Maintenance and Monitoring (OMM) Manual, where the maintenance requirements under the EMF are to be captured. At project completion, this will be handed over and implemented by VicRoads.

During the operational phase of the project, the ongoing responsibility for environmental management monitoring or maintenance requirements would be undertaken by VicRoads in accordance with their existing management systems.

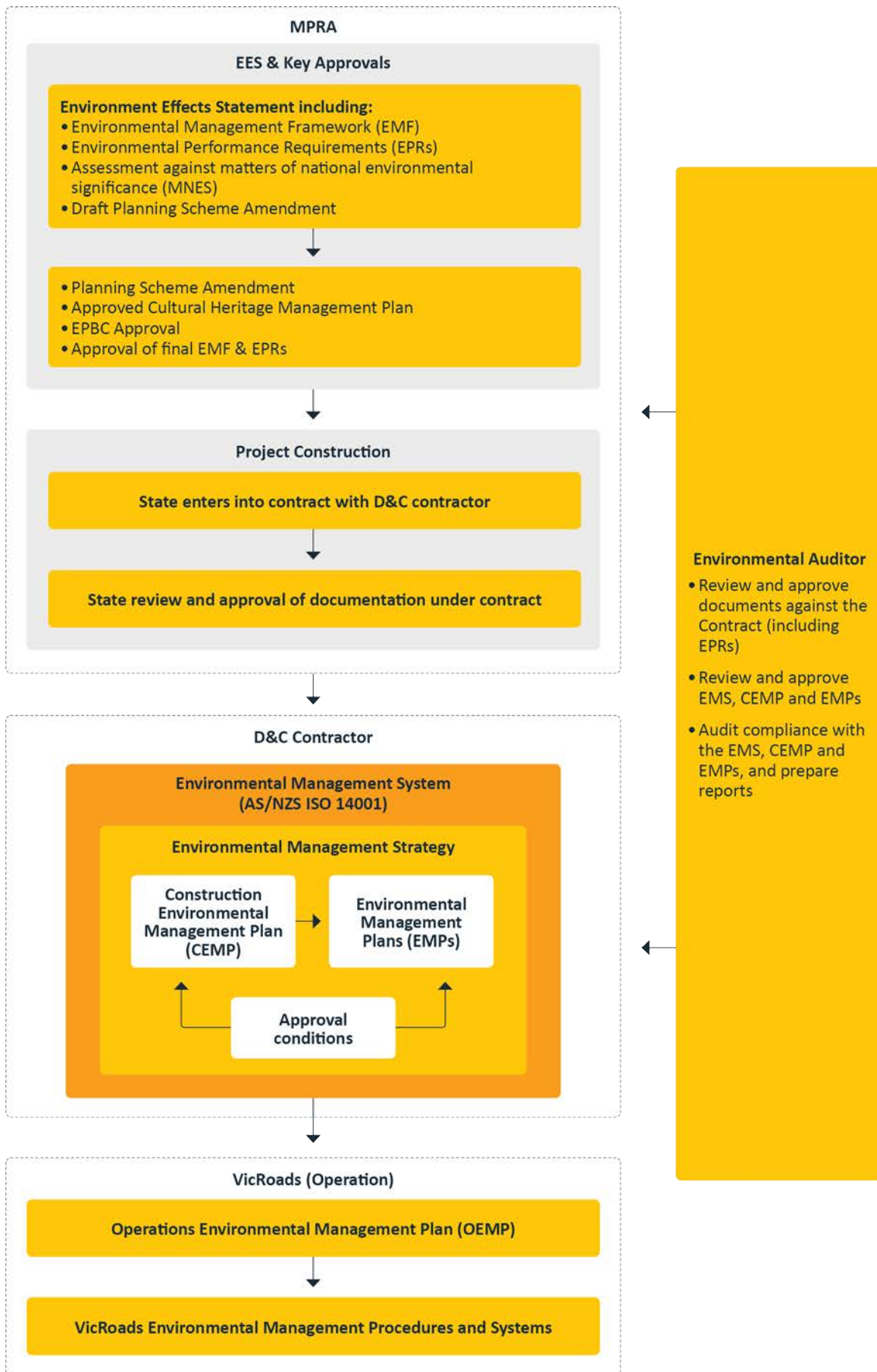


Figure 23.1 Governance framework

23.7 ROLES AND RESPONSIBILITIES

MRPA is an administrative office with Department of Economic Development, Jobs, Transport and Resources (DEDJTR) that has been established to manage and deliver major road projects for Victoria, including the project.

MRPA will be responsible for supervising the contractor and ensuring project delivery complies with all aspects of the EMF, EPRs and applicable statutory approvals. The contractor will also have obligations under the contract for the project to ensure that the project is delivered in a way that minimises environmental impacts. The contractor would be responsible for activities conducted by its subcontractors. Fulfilling the responsibilities and accountabilities across all elements of the EMF involves MRPA, the contractor, environmental auditor and regulators. The contractor's responsibilities would be included in the contract.

At the completion of the project, VicRoads (as the Victorian statutory road authority) would become responsible for the ongoing operation and maintenance of road related infrastructure delivered by the project.

The key roles and responsibilities for environmental management are described in Table 23.1.

Table 23.1 Roles and responsibilities for environmental management

Organisation/ functionary	Tasks/responsibilities
Minister for Planning	<ul style="list-style-type: none"> • Review and approve the EMF and EPRs under the Mordialloc Bypass (Freeway) Incorporated Document. • Receive regular audit reports as to compliance with the EMF and other environmental management plans, or as otherwise agreed with the Minister for Planning. • Administer and enforce approved EMF as responsible authority for the administration and enforcement of the Mordialloc Bypass (Freeway) Incorporated Document.
Commonwealth Minister for Environment and Energy	<ul style="list-style-type: none"> • Administer and enforce the EPBC approval, and approval conditions.

Organisation/ functionary	Tasks/responsibilities
MRPA	<ul style="list-style-type: none"> • Obtain key approvals required for the project comprising the Planning Scheme Amendment, approved Cultural Heritage Management Plan and approval under the EPBC Act. • Prepare the EMF (including EPRs) for assessment by the Minister for Planning. • Mandate compliance with the approved EMF and EPRs as a condition of the contract, except for those requirements for which the State will be responsible. • Mandate compliance with the conditions of key approvals as a condition of the contract. • Comply with those provisions of the approved EMF and EPRs for which the State is responsible. • Ensure that the requirements of the EMF and EPRs have been addressed and are complied with in the contractor's environmental management documentation. • Review and approve the contractor's Environmental Management Strategy, CEMP and EMPs including for compliance with the approved EMF, EPRs and approval conditions. • Review and approve the Operations Environment Management Plan (OEMP) to apply to the operations phase of the project. • Conduct surveillance of works to check compliance with the contract, the EMF, Environmental Management Strategy and EMPs. • Receive regular audit reports from the independent environmental auditor as to compliance with the approved EMF, EPRs, Environmental Management Strategy, CEMP and EMPs, and take corrective action as appropriate. • Provide regular audit reports as to compliance with the EMF and other environmental management plans to the Minister for Planning and sub-reports to other approval authorities as appropriate, or as otherwise agreed by the Minister for Planning or approval authority. • Liaise with regulators as required. • Conduct stakeholder engagement and community consultation activities as required.

Organisation/ functionary	Tasks/responsibilities
Design and Construct Contractor	<ul style="list-style-type: none"> • Obtain all other project approvals and comply with all approval conditions and obtain any secondary consents necessary for design and construction of the project. • Prepare an Environmental Management Strategy, CEMP and EMPs in accordance with the requirements of the approved EMF, EPRs, approval conditions and requirements of the contract and submit to MRPA for approval. • Implement the Environmental Management Strategy, CEMP and EMPs as approved by MRPA. • Ensure that all subcontractors comply with all approval conditions and approved environmental management plans. • Implement an EMS certified to AS/NZS ISO 14001: 2015 for the construction activities for the project. • Engage an independent environmental auditor to audit compliance with the approved EMF, EPRs, Environmental Management Strategy, CEMP and EMPs. • Assist MRPA in the provision of compliance reports to the Minister for Planning and sub-reports to regulators. • Take corrective action for any non-compliance identified in the audit reports to the satisfaction of MRPA, regulatory authority or independent environmental auditor as appropriate. • Keep MRPA informed of communications with regulatory authorities. • Prepare Operations, Maintenance and Monitoring (OMM) Manual at the time of project completion, including a maintenance activity calendar for a 5 year period complying with the EMF and EPRs.
VicRoads	<ul style="list-style-type: none"> • Operate and maintain the road infrastructure. • Undertake operational phase environmental management monitoring or maintenance requirements as required by the EMF and EPRs. • Incorporate the Operations, Maintenance and Monitoring (OMM) Manual into the operations and maintenance regime. • Deliver commitments identified in the Commitments Register which continue once the project is delivered.

23.8 STATUTORY APPROVALS AND CONSENTS

Table 23.2 Approvals

Type of permit/approval	Description	Approval authority	Responsible
Planning Scheme Amendment (PSA) under the Planning and Environment Act 1987	PSA to permit use and development of the Project under the City of Kingston and City of Greater Dandenong Planning Schemes. Includes Incorporated Document that refers to an Environmental Management Framework (including approved Environmental Performance Requirements (EPRs).	Minister for Planning	MRPA
Environment Protection Biodiversity Conservation Act 1999 (EPBC Act) approval	Federal approval required to ensure the protection and management of nationally and internationally important flora, fauna, ecological communities and heritage places is achieved.	Department of Environment and Energy (DoEE)	MRPA
Environment Effects Act 1978 (EE Act)	State process required to allow the Minister for Planning to assess and advise whether the project provides an environmentally acceptable outcome.	Minister for Planning	MRPA
Cultural Heritage Management Plan (CHMP) approval	Aboriginal Victoria approval of the completed CHMP to ensure the protection of Aboriginal cultural heritage in the activity area.	Aboriginal Victoria	MRPA
Wildlife Act 1975 permit	Permit required to remove fauna, salvage capture or relocate fauna as required by project mitigation measures.	Department of Environment, Land, Water and Planning (DELWP)	D&C Contractor
Water Act 1989 approval	Obtain approval from Melbourne Water to construct a bridge, crossing or culvert.	Melbourne Water	D&C Contractor
Catchment and Land Protection Act 1994 permit	Permit to transport noxious weeds.	Agriculture Victoria (DEDJTR)	D&C Contractor

23.9 ENVIRONMENTAL MANAGEMENT PLANS AND DOCUMENTATION

The documentation required to implement the EMF is made up of a number of key documents as well as environmental legislation, approvals and approval conditions that must be complied with. Figure 23.2 outlines the key documents that make up the EMF.

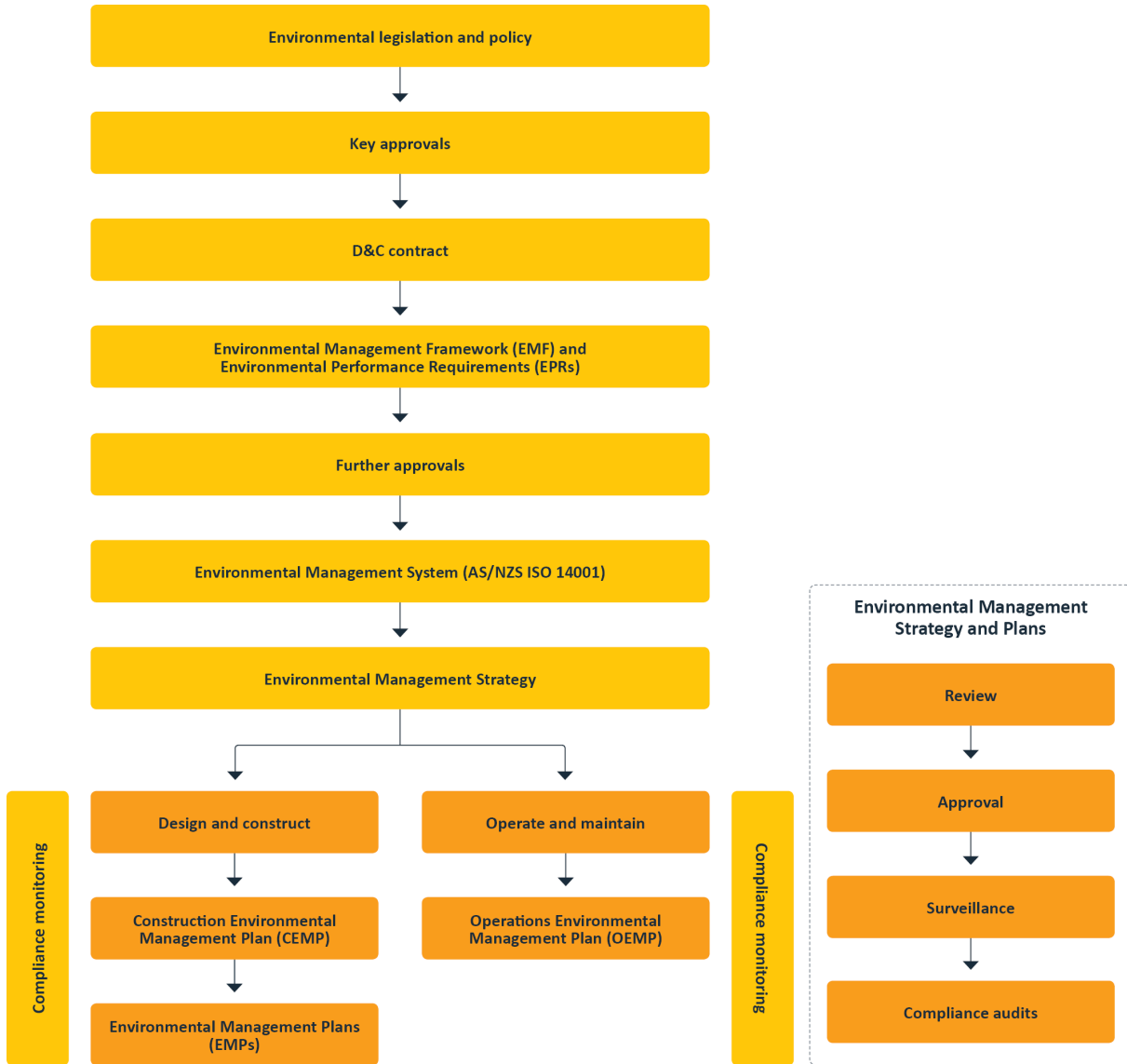


Figure 23.2 Environmental management documents

23.9.1 Development of key plans

Table 23.3 describes in more detail the key environmental management documentation that would be required to be prepared for the project, in addition to key and other statutory approvals.

Table 23.3 Key environmental management documentation

Documentation	Description
State of Victoria (MRPA)	
Environmental Management Framework (EMF)	This document provides the governance framework to manage environmental impacts as identified through the EES process and will be approved by the Minister for Planning under the Incorporated Document governing development of the project. The EMF prepared to the satisfaction of the Minister for Planning must be consistent with this chapter of the EES except where otherwise agreed to by the Minister for Planning including to give effect to the outcomes of the Minister's assessment.
Environmental Performance Requirements (EPRs)	EPRs (Table 23.6) have been developed through preparation of the EES and define the project-wide environmental outcomes that must be achieved during design, construction and operation of the project. The finalised EPRs will be contained in the EMF to be prepared to the satisfaction of the Minister for Planning under the Incorporated Document.
Design and Construct Contractor	
Environmental Management System	Implementation of the contractor's Environmental Management System (certified to AS/NZS ISO 14001: 2015 <i>Environmental management systems – Requirements with guidance for use</i>) prior to project construction (refer to EPR reference EMF1). The purpose of the Environmental Management System would be to establish a plan-do-check-act system to identify and manage environmental risks and impacts, and ensure comprehensive and integrated identification and management of environmental risks and issues through project design and construction.

Documentation	Description
Environmental Management Strategy	<p>The contractor's Environmental Management Strategy demonstrating how the contractor is going to implement the approved EMF and EPRs. It is the contractor's response to the project's EMF.</p> <p>The Environmental Management Strategy would need to be approved by MRPA before commencement of any works other than preparatory works.</p> <p>The Environmental Management Strategy would outline how the contractor is going to implement the approved EMF and EPRs and require the preparation of environmental management plans and procedures including the CEMP and various EMPs to address specific issues, activities or locations. The Environmental Management Strategy would be required to address:</p> <ul style="list-style-type: none"> • contractor processes and responsibilities for identifying environmental risks and potential impacts and managing environmental issues • the EPRs and the process for identifying the specific measures to be put in place to achieve each of the EPRs • a process for identifying and complying with all legislative requirements and the requirements of relevant statutory authorities, including approvals, permits, consents and licences • roles, responsibilities and authorities for environmental management • an overview of environmental management documents for the design and construction phase of the project, including the CEMP, EMPs and other management plans and procedures including a description of their purpose, required content and how they relate to the Environmental Management System, the approved EMF, the Environmental Management Strategy and each other • procedures for receiving, investigating and responding to complaints relating to environmental matters • processes and responsibilities for: <ul style="list-style-type: none"> - training, competency and awareness - communications and reporting - control of documented information - monitoring implementation of the Environmental Management Strategy, CEMP and environmental management plans and procedures including implementation of appropriate monitoring programs to measure performance - identifying and triggering contingency measures to be implemented under each of the CEMP and other environmental plans as appropriate to ensure that adverse effects are adequately controlled during construction if monitoring demonstrates more significant adverse effects than predicted or permitted - auditing compliance with the Environmental Management Strategy, CEMP and EMPs including by the environmental auditor to audit compliance and provide reports on a regular basis - reviewing, updating and obtaining approval for revisions to the approved Environmental Management Strategy, CEMP and EMPs - management of subcontractors and suppliers - auditing and evaluating compliance with legal and other requirements - reporting and investigating environmental incidents - identifying non-conformances and implementing corrective and preventative actions - emergency and incident preparedness and response, including after-hours response, arrangements for containing environmental damage and attendance on-site in the event of an emergency - any other project-specific requirements considered appropriate, including any new or revised EPRs resulting from the EES assessment process.

Documentation	Description
Construction Environmental Management Plan (CEMP)	<p>The contractor is required to prepare a CEMP, in accordance with the EPRs. (refer to EPR reference EMF2). The CEMP would reflect the requirements of the EMS and EPA Victoria Publication No 480 <i>Environmental Guidelines for Major Construction Sites</i>, and would contain detailed procedures and actions for meeting the EPRs for works and include procedures for:</p> <ul style="list-style-type: none"> • 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 • managing environmental incidents including incident reporting and investigation • management of non-conformances with the CEMP, EMPs, approvals or EPRs • corrective and preventative action • reviewing and updating the CEMP to take account of events or circumstances which may affect the manner in which the project activities are to be carried out including in response to an audit finding or additional approval.

23.9.2 Additional plans required by the EPRs

The EPRs require the preparation of additional plans and procedures including the specific plans set out in the following Table 23.4.

Table 23.4 Technical management plans required by the project EPRs

Plan	Prepared by	Authorities with input	Relevant EPR
Spoil Management Plan	D&C Contractor	EPA	EPR CL1
Acid Sulfate Soil Management Plan	D&C Contractor	EPA	EPR CL2
PFAS Management Plan	D&C Contractor	EPA	EPR CL6
Landfill Gas Management Plan	D&C Contractor	EPA	EPR CL4 EPR CL5
Water Management and Monitoring Plan	D&C Contractor	EPA and relevant water authorities	EPR W5
Community and Stakeholder Engagement Plan	D&C Contractor	City of Kingston Council and City of Greater Dandenong Council	EPR S1

Plan	Prepared by	Authorities with input	Relevant EPR
Transport Management Plan	D&C Contractor	City of Kingston Council, City of Greater Dandenong Council, VicRoads and public transport providers	EPR T2
Construction Noise and Vibration Management Plan (CNVMP)	D&C Contractor	EPA	EPR NV2
Sustainability Management Plan	D&C Contractor	–	EPR GG1

23.9.3 Approvals and change management

An outline of the review and approval requirements for the key construction phase environmental management documents of the EMF is provided in Table 23.5. All plans and documentation would be prepared and approved prior to the relevant works commencing. All plans required to be prepared by the D&C Contractor are required to be submitted to MRPA for approval with a declaration from the environmental auditor stating that the documents comply with the contract specification and are suitable for approval by MRPA.

Table 23.5 Environmental management documentation responsibilities

Document	Minister for Planning	State of Victoria (MRPA)	D&C Contractor
Environmental Management Framework with EPRs	Approve	Prepare	Comply with
Contractor's Environmental Management Strategy	–	Approve	Prepare and implement
Contractor's Environmental Management System	–	Review and evaluate	Maintain
Construction Environment Management Plan	–	Approve	Provide and implement
Soil Management Plan	–	Approve	Provide and implement
Landfill Gas Management Plan	–	Approve	Provide and implement
Water Management and Monitoring Plan	–	Approve	Provide and implement
Community and Stakeholder Engagement Management Plan	–	Approve	Provide and implement
Transport Management Plan	–	Approve	Provide and implement
Construction Noise and Vibration Management Plan	–	Approve	Provide and implement
Sustainability Management Plan	–	Approve	Provide and implement

23.9.4 Contingency measures

The CEMP and environmental plans will be required to include appropriate contingency measures to address the risk of adverse environmental effects occurring during construction or operation of the project, as relevant. The plans will also identify the triggers for the implementation of such measures to ensure that adverse effects are adequately controlled in the event that monitoring, auditing or other means identifies:

- more significant adverse effects than anticipated or permitted
- issues or risks not anticipated.

The contingency measures will be developed to comply with all relevant environmental laws, approvals, approval conditions, the EMF and the EPRs.

23.10 CONSULTATION, STAKEHOLDER ENGAGEMENT AND COMMUNICATIONS

A Community and Stakeholder Engagement Plan would be prepared and implemented by the contractor to set out the specific actions, requirements and processes to engage with the community and other stakeholders (such as local businesses and special interest groups). It shall be prepared in line with relevant guidelines and the Victorian Auditor General Office: *Better Practice Guide: Public Participation in Government Decision Making*.

The Community Stakeholder Engagement Plan would 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, main 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.

The contractor would also document and implement a complaints management process (including processes and measures for registering, managing and resolving complaints) consistent with *AS/NZS 10002: 2014 Guidelines for Complaint Management in Organisations*.

Further information, including complaints management during other stages of the project, is presented in Chapter 7: *Consultation and stakeholder engagement*.

23.11 PERFORMANCE MANAGEMENT

23.11.1 Compliance

Compliance with the obligations imposed by the Incorporated Document will be managed through:

- regular audits of compliance with the approved EMF, CEMP, and other environmental plans by the environmental auditor during construction provision of audit reports to MRPA by the contractor
- regular audits of compliance by MRPA including for a period of at least two years following completion
- provision of audit reports to the Minister for Planning and sub-reports to other statutory approval authorities as required
- monitoring of compliance against the EPRs, Environmental Management Strategy, CEMP and other environmental plans by the MRPA
- monitoring of compliance with the approval conditions by the statutory authorities
- implementation of contingency measures under the CEMP and other environmental plans as appropriate to ensure that adverse effects are adequately controlled if monitoring, auditing or other means demonstrates more significant adverse effects than predicted or permitted or if issues or risks not anticipated are identified
- implementation of remedial action in the event any non-compliance issue is identified.

This approach will ensure that the effectiveness of the EMF, the EPRs and the various environmental management plans and procedures developed and implemented for the project is monitored, measured, communicated and the subject of continuous review and improvement.

This approach is furthermore founded on best practice principles in performance management ensuring that the potential for adverse effects associated with development and operation of the project are controlled and that beneficial environmental outcomes to be achieved by the project are supported.

23.11.2 Reporting

The Contractor will report to the MRPA in accordance with the requirements of the Incorporated Document, as follows:

- status of current and planned works, key environmental issues and management measures
- advice on any proposed changes to the Environmental Management Strategy, EPRs, CEMP and other environmental plans
- 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
- 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.

MRPA would prepare environmental performance reports to the Minister for Planning at least quarterly, or as agreed by the Minister.

23.12 ENVIRONMENTAL PERFORMANCE REQUIREMENTS (EPRs)

EPRs have been developed to address the identified risks and impacts and to deliver environmental benefits and are presented in Table 23.6.

The EPRs are performance-based and expressed in terms of outcomes to be achieved for a net community benefit, while allowing flexibility in the detailed design response or specific measures to be put in place to achieve the requisite outcome. By enabling (where appropriate) consideration of specific design alternatives to achieve a particular outcome, the EPRs facilitate innovation in ongoing design development and project implementation. This performance based approach recognises that there is not necessarily only one way of achieving a particular outcome and that the optimum design alternative is a matter best resolved at detailed design within a transparent and robust environmental management framework.

The preparation of the EPRs has been on the basis of applicable regulatory requirements and the results of the environmental risk assessment process. Environmental risks and impacts have been identified and assessed through the specialist investigations for the EES and a detailed environmental risk assessment process, as described in Chapter 4: *EES assessment framework and approach* of the EES. The risk assessment process is consistent with AS/NZS ISO 31000: 2009 Risk management – principles and guidelines.

The contractor would be required to comply with and implement all EPRs except where responsibility for implementation is retained by the State. The specific issues addressed by the EPRs are as per the headings in Table 23.6.

Applicable environmental legislation and policy was considered in the development of the EPRs.

The EPRs applicable to the project will be approved by the Minister for Planning as part of the EMF which must be prepared the Ministers satisfaction and in accordance with the Incorporated Document.

Where consultation forms part of an EPR, this may include meetings, workshops and exchange of documentation and correspondence between MRPA and/or its contractor and stakeholders, but would not necessarily require the submission of written documentation or draft plans for formal comment to any particular stakeholder.

Table 23.6 Project Environmental Performance Requirements (EPRs)

EPR reference	EPR	Project phase
Environmental management		
EM1	<p>Environmental Management Strategy</p> <p>The Contractor must prepare an Environmental Management Strategy consistent with the Environmental Management Framework (EMF) which will be prepared to the satisfaction of the Minister for Planning under the Incorporated Document applicable to the project. The Environmental Management Strategy is to demonstrate how the EMF and EPRs will be implemented in the design and construction of the project and is to be approved by the State prior to the commencement of any works other than preparatory works referred to in the Incorporated Document.</p> <p>The Environmental Management Strategy must incorporate an Environmental Management System that complies with AS/NZS ISO 14001: 2015 <i>Environmental management systems – Requirements with guidance for use</i>.</p> <p>The EMF must be updated and re-assessed by the Minister for Planning for traffic lanes to be added to the project in the future.</p>	Construction
EM2	<p>Environmental management plans</p> <p>Prepare and implement a Construction Environmental Management Plan (CEMP), Operations Environmental Management Plan (OEMP) and other management plans as required by the EPRs in accordance with the Environmental Management Strategy. All plans must be prepared to the satisfaction of MRPA or the authority specified the EPRs. 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).</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 Environmental Management Strategy. The CEMP and management plan(s) must be approved by the State prior to the commencement of works (except for preparatory works referred to in the Incorporated Document). The OEMP must be approved by the State prior to opening the project to the public.</p>	All
EM3	<p>Environmental complaints management</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 AS/NZS 10002: 2014 <i>Guidelines for Complaint Management in Organisations</i>.</p>	Construction
Air quality		
AQ1	<p>Air quality (operation)</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 but not limited to:</p> <ul style="list-style-type: none"> • <i>State Environment Protection Policy (Air Quality Management)</i> • <i>State Environment Protection Policy (Ambient Air Quality)</i>. 	All

EPR reference	EPR	Project phase
AQ2	<p>Air quality (construction)</p> <p>Measures to minimise dust, odour and other air emissions must be implemented in accordance with relevant legislation, policies and guidelines including, but not limited to:</p> <ul style="list-style-type: none"> EPA Victoria Publication 480: <i>Environmental Guidelines for Major Construction Sites</i>. 	Construction
Biodiversity		
B1	<p>Fauna habitat</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"> 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) multi-function fauna barriers to limit fauna mortality, limit disturbance to surrounding habitat areas and encourage culvert use by fauna between Braeside Wetlands and Woodlands Wetlands, and between the Waterways Wetland waterbodies south of Governor Road a low fauna barrier to limit fauna mortality and encourage culvert use on the eastern side of the new roadway, north of the Parks Victoria office and adjacent to Braeside Park wildlife friendly fencing to control human and dog access to Braeside Wetlands and Braeside Park from the shared user path or roadway landscaping including: <ul style="list-style-type: none"> the use of site-specific indigenous species creating or revegetating habitat that maximises connectivity at fauna crossing points and under the constructed bridge over Waterways wetlands open wetland and grassy habitat where appropriate, including swales adjacent to fauna barriers a dual bridge structure at Mordialloc Creek/Waterways wetland to allow light penetration and facilitate fauna movement. 	All
B2	<p>Lighting design</p> <p>Fauna sensitive 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"> Siting of lights: <ul style="list-style-type: none"> Use lights only where necessary and use the minimum brightness (lumens) possible Site lighting columns away sites of ecological value to the extent possible Minimise the height of lighting where possible. Fixtures: <ul style="list-style-type: none"> Use shielding to fully shield bulbs and lenses and to minimise light spill onto sites of ecological value Avoid reflective surfaces under lights. Wavelengths: <ul style="list-style-type: none"> Use narrow-spectrum light sources to lower the range of species affected by lighting, and avoid blue and white wavelengths (4200 kelvin, ideally <3000 kelvin) Use long wavelength bulbs to minimise the emission of UV light. 	Design, Construction

EPR reference	EPR	Project phase
B3	<p>Native vegetation and habitat</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. 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 Environmental Management Strategy developed as per EPR EM1.</p>	Design, Construction
B4	<p>Fauna (construction)</p> <p>Minimise, monitor and document impacts on fauna during construction works, including:</p> <ul style="list-style-type: none"> • obtaining all relevant permits under the <i>Wildlife Act 1975</i> • pre-clearing fauna surveys and relocation of fauna by qualified fauna handlers to nearby suitable habitat • directional temporary construction lighting to minimise lighting impact on sensitive fauna habitat • noise and vibration impacts on sensitive fauna • 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 • regular inspections of excavations/trenches • restricting heavy construction vehicles along Edithvale Road • adding high value habitat trees (including hollow-bearing and large trees) into no-go zones where suitable • 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 • minimise barriers to fauna movement at the end of each day and installation of fauna movement devices where effective to create safe crossing opportunities • enforced speed limits of 40km per hour within construction areas, outside of existing arterial roads. 	Construction
B5	<p>Native vegetation (construction)</p> <p>Monitor, minimise and document impacts on retained/adjacent native vegetation, including:</p> <ul style="list-style-type: none"> • 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 • mapping and fencing of no-go zones and tree protection zones • 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 • environmental induction/training for construction personnel • development and implementation of weed hygiene measures to avoid the spread or introduction of weeds during construction, including vehicle and equipment hygiene measures • as far as practicable, re-establishing the landform and substrate under the Mordialloc Creek bridge following bridge construction. 	Construction

EPR reference	EPR	Project phase
B6	<p>Flora and Fauna (operation)</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:</p> <ul style="list-style-type: none"> • flora and fauna monitoring by ecologists for 5 years after opening, including bird use of nearby wetlands (Woodlands Wetlands, Braeside Park Wetlands, and Waterways Wetlands) and threatened flora and weeds at the Waterways, to include at least one monitoring event prior to opening <ul style="list-style-type: none"> - monitoring of measures to improve habitat connectivity for threatened fauna including Waterways bridge, fauna culverts, and revegetation. 	Operation
Contaminated land		
CL1	<p>Soil Management Plan</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. 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).</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.</p> <p>The SMP must follow published EPA guidance on contaminated soil management and reuse on major infrastructure projects.</p> <p>The SMP must include an Acid Sulfate Soil Management Plan (EPR CL2) and management requirements for PFAS contaminated soils (see EPR CL6).</p>	Construction
CL2	<p>Acid Sulfate Soil Management Plan</p> <p>Prior to the commencement of works (other than preparatory works referred to in the Incorporated Document), prepare an Acid Sulfate Soil Management Plan in consultation with EPA Victoria in accordance with the <i>Industrial Waste Management Policy (Waste Acid Sulfate Soils) 1999</i>, EPA Publication 655.1 <i>Acid Sulfate Soil and Rock</i>, and relevant EPA regulations, standards and best practice guidance. This plan must include:</p> <ul style="list-style-type: none"> • locations and extent of potential acid sulfate soils that could be disturbed or otherwise affected by the project • assessment of potential impact on human health, odour and the environment • measures to prevent oxidation of acid sulfate soils wherever possible, and • suitable sites for management, reuse or disposal of acid sulfate soils. 	Construction

EPR reference	EPR	Project phase
CL3	<p>Passive landfill gas capture and venting</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 meet the landfill gas management requirements of the EPA’s guideline <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>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 has the potential to migrate to.</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>	All
CL4	<p>Landfill Gas Management Plan (Construction)</p> <p>Prior to the commencement of works (other than preparatory works referred to 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"> • reference applicable regulatory requirements • detail the nature and extent of contamination • include details of design and construction requirements for passive landfill gas and venting systems • define roles and responsibilities • detail landfill gas monitoring and reporting requirements • include monitoring requirements for explosive atmospheres and fire risks during construction • include guidelines for work areas which constitute confined spaces, and • include requirements for use of spark and flame emitting equipment, tools or plant during construction works. 	Construction
CL5	<p>Landfill Gas Management Plan (Operation)</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 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>	Operation

EPR reference	EPR	Project phase
CL6	<p>PFAS Management Plan</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 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) (HEPA 2018).</p>	Construction
CL7	<p>Landfill material</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.</p>	Design, Construction
Economic		
E1	<p>Business Disruption Plan</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"> • transport planning prior to road closures to minimise impacts on business access and parking (EPR T1) • a process for communication with traders and businesses • management of potential amenity impacts during construction and operation (EPR AQ1, AQ2, NV2, and NV3). 	Design, Construction
E2	<p>Utility assets</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"> • stormwater and sewer assets • electricity transmission assets (overhead and underground lines) • gas and fuel pipelines • communications lines (e.g. fibre optic cables). <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>	Design, Construction
Greenhouse gas/sustainability		
GG1	<p>Greenhouse gas monitoring and reporting</p> <p>Minimise and manage greenhouse gas emissions (GHG) arising from construction, operation and maintenance through the integration of sustainable design practices.</p> <p>Create a Sustainability Management Plan (SMP) which 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).</p>	All

EPR reference	EPR	Project phase
GG2	<p>Emissions reduction</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>	All
Heritage		
H1	<p>Cultural Heritage Management Plan</p> <p>Comply with and implement the Cultural Heritage Management Plan (CHMP) approved under the <i>Aboriginal Heritage Act 2006</i>.</p>	Construction
H2	<p>Unidentified non-Aboriginal historical archaeological sites</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>	Construction
H3	<p>Non-Aboriginal heritage sites</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.</p>	Design, Construction

EPR reference	EPR	Project phase
Landscape and visual		
LV1	<p>Landscape design</p> <p>Landscape design plans must be developed prior to the commencement of works (other than preparatory works referred to in the Incorporated Document) and must be based on relevant standards and the best practice principles of the Urban Design Charter for Victoria and the <i>Urban Design Guidelines for Victoria (DELWP 2017)</i>.</p> <p>The landscape design plans must incorporate, where practicable, mitigation measures to minimise the landscape and visual impact associated with the project, including in respect of:</p> <ul style="list-style-type: none"> • open spaces and recreational spaces • community facilities • residential interfaces • industrial interfaces, and • heritage assets. <p>The landscape design plans must:</p> <ul style="list-style-type: none"> • make use of appropriate ecologically sensitive planting • consider existing landscape character and sensitivities • enhance key gateway streetscapes • maintain and enhance existing pedestrian connections, where practicable • be developed in consultation with appropriate Traditional Owner groups to provide direction on appropriate landscape typologies, land management practices and principles • incorporate requirements of EPR LV2, and • make use of advance tree plantings, where appropriate, to reduce the initial visual impact. <p>In consultation with relevant stakeholders, the landscape design plans must include vegetation screening appropriate for visually impacted community spaces, including residential areas and public open spaces, must be designed and implemented.</p> <p>Landscaping in accordance with the landscape design plans must be implemented and maintained (EPR LV7).</p>	All
LV2	<p>Crime prevention through environmental design</p> <p>Landscape 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 (DELWP 2017)</i> and maximising passive surveillance levels as far as practicable.</p>	All
LV3	<p>Reinstatement works</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>	Operation
LV4	<p>Lighting (operation)</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>	All

EPR reference	EPR	Project phase
LV5	<p>Light spillage (construction)</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>	Construction
LV6	<p>Tree removal</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>	Construction
LV7	<p>Landscape management strategy</p> <p>A landscape management strategy must be developed and implemented to ensure healthy growth of planted vegetation. The strategy will include weed management.</p>	Construction, Operation
Noise and vibration		
NV1	<p>Noise and vibration (design)</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 <i>Project Objective Noise Levels</i>:</p> <ul style="list-style-type: none"> • 63dBA L_{10, 18Hr} for the new bypass, and • 68dBA L_{10, 18Hr} for the Mornington Peninsula Freeway works • For noise-sensitive receivers as defined in the VicRoads <i>Traffic Noise Reduction Policy</i>. 	Design
NV2	<p>Construction Noise and Vibration Management Plan</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"> • 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 • include measures to manage vibration in accordance with human response to vibration 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>). <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>	Construction
NV3	<p>Traffic noise verification</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>	Operation

EPR reference	EPR	Project phase
Social		
S1	<p>Community and Stakeholder Engagement Plan</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"> • identify all project activities that potentially impact on community and business operations, and provide for well-coordinated communication and engagement processes in relation to each activity • outline key messages • ensure that project communications and engagement activities reflect the needs and profiles of local communities • 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 • address the needs of users of community facilities impacted by the project • 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 • 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 EM3. 	All
S2	<p>Recreational facilities</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>	Construction
Transport		
T1	<p>Intersection and freeway design and performance</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>	All

EPR reference	EPR	Project phase
T2	<p>Transport Management Plan</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"> • 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 • consideration of cumulative impacts of other major projects operating concurrently in the local area • 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 minimising the use of local streets • development of suitable measures to ensure emergency service access is not inhibited as a result of project construction activities (in consultation with emergency services) • 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 • 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 • 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) • reinstatement of access to open space, community facilities, commercial premises and dwellings if disrupted, as soon as practicable, and to an equivalent standard • provision for safe access points to laydown areas and site compounds • 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). <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>	Construction
T3	<p>Vehicle and pedestrian access</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>	Construction

EPR reference	EPR	Project phase
Water		
W1	<p>Water body health</p> <p>During design and operation, impacts on surface water quality and flow must be minimised through adoption of measures to avoid an increase in discharge of pollutant loading (to higher than existing conditions levels) on beneficial uses due to the construction of the project in accordance with CSIRO <i>Best Practice Environmental Management Guidelines for Urban Stormwater (1999)</i> and Water Sensitive Road Design (WSRD). 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.</p> <p>The design of surface water control measures for the project as a whole must comply with the VicRoads <i>Integrated Water Management Guidelines (2013)</i> and CSIRO <i>Best Practice Environmental Management Guidelines for Urban Stormwater (1999)</i>.</p>	Design, Operation
W2	<p>Flood protection (operation)</p> <p>Changes to flood behaviour resulting from the project must meet the requirements of Melbourne Water’s guideline “<i>Melbourne Water standards for infrastructure in flood prone areas</i>”.</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 Management and Monitoring Plan (EPR CL8).</p>	Design, Operation
W3	<p>Surface water management (construction)</p> <p>Protect local waterways by applying best practice sedimentation and pollution control measures in accordance with EPA Victoria publication 480 <i>Environmental Guidelines for Major Construction Sites</i> 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 of Victoria) 2004 and Melbourne Water performance criteria. Such plans and systems should be prepared in consultation with relevant authorities before the commencement of works.</p>	Construction
W4	<p>Flood protection (construction)</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 Melbourne Water for any temporary works.</p>	Construction

EPR reference	EPR	Project phase
W5	<p>Water Management and Monitoring Plan</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>Incorporating the baseline data collected to date, the WMMP must include:</p> <ul style="list-style-type: none"> • detail of the monitoring parameters, including the frequency and location of surface water monitoring points and groundwater monitoring bores • specific trigger levels (water quality in surface water bodies and groundwater bores) and details of contingency plans in the case trigger levels are exceeded • detailed reporting requirements • roles and responsibilities, not limited to: <ul style="list-style-type: none"> - the owner of monitoring network assets - the manager of monitoring network assets and results - the party (or parties) undertaking monitoring (prior to construction, during construction and for five years following opening). 	All
W6	<p>Surface water management (design and operation)</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>	Design, Operation