



9 ENVIRONMENTAL MANAGEMENT FRAMEWORK

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9.1 Scoping Requirements

This chapter responds to Section 3.5 of the Scoping Requirements which requires an Environmental Management Framework (EMF) to be prepared for the projects.

The Scoping Requirements state:

The EMF should describe the baseline environmental conditions to allow evaluation of the residual environmental effects of the project, as well as the efficacy of applied environmental management and contingency measures. The framework should include:

- *an environmental management system, with organisational responsibilities, accountabilities and governance arrangements;*
- *an environmental risk register that is maintained during project implementation; and*
- *environmental management measures proposed in the EES to address specific issues, including commitments to mitigate adverse effects and enhance environmental outcomes.*

The EMF should outline the environmental management plans for construction and operation phases of the project as well as the process and timing for development of these plans. The entity responsible for approval of the plans should be identified.

An important aspect of the EMF is community consultation, stakeholder engagement and communications during the construction and operation of the project. As the project proceeds it will largely be the EMF that outlines opportunities for local stakeholders to engage with LXRA to seek responses to issues that might arise during construction or operation. To this end the EMF will set out procedures for:

- *complaints recording and resolution*
- *auditing and reporting of performance including compliance with relevant statutory conditions and standards; and*
- *review of the effectiveness of the environmental management framework for continuous improvement.*

Project environmental performance requirements that define project-wide environmental outcomes to be achieved should be clearly described in the EMF. The proposed objectives, indicators and monitoring requirements to be described, are:

- *biodiversity values, particularly with respect to the Edithvale-Seaford Wetlands and its ecological character;*
 - *groundwater levels, behaviour, quality and protected beneficial uses, particularly with respect to their potential for change in the context of climate change and the potential impacts on the Edithvale-Seaford Wetland;*
 - *surface water catchments, drainage and behaviour, and beneficial uses;*
 - *solid and liquid waste, including recycling and handling of potentially hazardous or contaminated waste, potential acid sulphate soils (PASS) and other excavated spoil;*
 - *social outcomes and community engagement;*
 - *noise, vibration, and emissions to air;*
 - *energy and greenhouse gas emissions;*
 - *Aboriginal and historic cultural heritage values;*
 - *transport management;*
 - *traffic during construction; and*
 - *site reinstatement.*
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9.2 Statutory context

This chapter presents the EMF for the Edithvale and Bonbeach level crossing removal projects.

The design and construction of the projects would be authorised and regulated by Incorporated Documents that would be incorporated into the Kingston Planning Scheme and by the approval of the controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Incorporated Documents would set out the requirements for an EMF for the projects.

The Incorporated Documents requires the EMF to be approved by the Minister for Planning.

The EMF would be approved by the Minister for Planning prior to the commencement of buildings and works (other than preparatory works) under the Incorporated Documents. The design and construction of the projects would be required to be carried out in accordance with the approved EMF.

9.3 Purpose of the EMF

This EMF provides a transparent and integrated governance framework to manage the environmental effects of the Edithvale and Bonbeach level crossing removal projects identified in this EES. It responds to Section 3.5 of the Scoping Requirements issued for the EES, as well as the need to ensure a high level of rigour within the environmental management of both projects.

The objectives of the EMF are to:

- establish a framework to ensure compliance with statutory requirements and minimise environmental risks
- set out the environmental outcomes to be achieved during design and construction and encourage innovation to achieve them
- ensure accountabilities are identified for managing and monitoring environmental effects and hazards associated with the design and construction phases of the projects.

The EMF outlines clear accountabilities for the delivery and monitoring of the implementation of the projects and includes a set of Environmental Performance Requirements (EPRs). As outlined in Chapter 4 *Assessment framework*, the EPRs determine the environmental outcomes that the design and construction of the Edithvale and Bonbeach projects must achieve. The EPRs have been developed through the preparation of the EES. The performance-based approach that underpins the EPRs provides for sufficient flexibility to encourage innovation by the contractor engaged to determine how the standards contained in the EPRs would be achieved.

The EMF outlines clear accountabilities for the delivery and monitoring of the EPRs so that the environmental effects of the projects would be managed.

The EMF requires the contractor constructing the projects 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 relevant legislation, policy and guidelines, and LXRA's Environmental Management Framework.

The purpose of the requirement for an EMS is to ensure that works are planned and performed so that the adverse effects on the environment are either avoided, minimised or managed, and are carried out in accordance with the EPRs. This EMF requires the contractor to specifically apply its EMS, and modify if required, for the delivery of works for the projects.

The EMF provides a structured approach for monitoring the implementation of the Construction Environment Management Plan (CEMP) and other plans required to comply with the EPRs, the Incorporated Documents and any statutory approvals.

The contractor's compliance with the EMF, CEMP and other management documents would then be audited throughout the project. Refer to Sections 9.8 and 9.9 of this EMF for a description of the management plans and requirements for ongoing monitoring of their implementation.



9.4 Projects overview and description

Following completion of the EES process, the EMF would be updated to include a project overview and description, consistent with that in Chapter 2 *Rationale and project descriptions* and the Incorporated Documents.

9.5 Contract structure

This section outlines LXRA's contract structure and procurement strategy for the projects. The governance framework established by these contracts would, together with the statutory obligations and requirements of the Incorporated Documents, ensure implementation of this EMF.

The projects would be delivered through an Alliance contract model. Alliance contracting is a form of relationship contracting where a construction company, engineering designers, architects and other specialists, partner with the Victorian Government (represented by LXRA) to prepare the final detailed design and construct the projects. LXRA staff would work within the Alliance team and LXRA would also provide corporate oversight of the Alliance's performance.

The procurement process would include the requirement for bidders to demonstrate certification to AS/NZS ISO 14001 and set out their environmental management approach. This would enable the bidders to demonstrate their approach to achieving compliance with the EMF. LXRA would review and assess this information against the requirements of the EMF.

The contractor would be appointed under a Program Alliance Agreement (PAA). LXRA would administer the PAA on behalf of the Victorian Government. The PAA would detail the contractor's obligations for delivery of the works.

Following contract award and prior to construction commencing, the Alliance would be required to apply its existing EMS to the specific activities for construction of the projects and develop and implement a CEMP to meet the requirements of this EMF.

The CEMP would describe in detail how the Alliance would meet the EPRs and approval conditions and identify, manage and mitigate environmental risks arising during design and construction. Specific requirements for the Alliance documentation are outlined in Section 9.8.

9.6 Governance framework

The projects would be delivered within the context of LXRA's Environmental Management Framework (LXRA-EMF), as well as the statutory context and contract structure. The LXRA-EMF addresses the planning, environmental and heritage aspects of all projects and packages being delivered by LXRA. It applies across the whole project lifecycle from assessment and approvals planning through to implementation and delivery, and completion.

Its key objectives are to:

- minimise project delivery, approvals, environmental and reputational risks
- increase certainty that key environmental risks are identified and meaningfully considered early in project planning and throughout project delivery
- set out the expected performance-based outcomes during design and construction and encourage innovation by delivery partners to achieve them
- ensure environmental effects and hazards are appropriately managed in a consistent manner across the Level Crossings Removal Program and good environmental outcomes are achieved.

Delivery partners (i.e. contractors) and LXRA itself are required to implement and comply with the LXRA-EMF which sets out standards, processes and expectations for:

- roles and responsibilities
- environmental management plans and documentation
- contingency measures
- evaluating environmental performance including monitoring, auditing and reporting.

For implementation and delivery, the LXRA-EMF requirements are principally delivered through the PAA. The PAA would include a requirement to implement and comply with the EMF and the EPRs.

The PAA would:

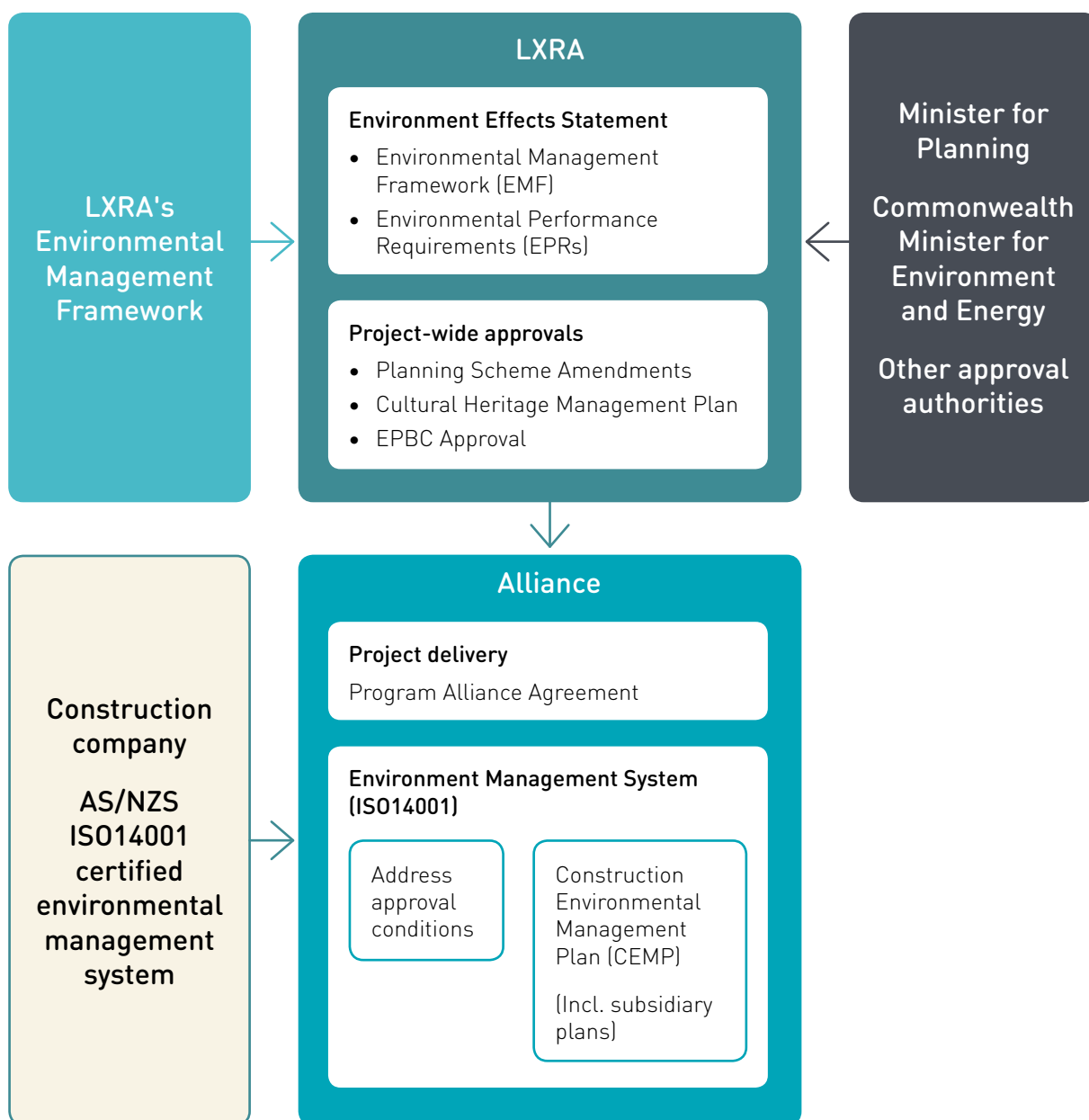
- require the construction company engaged to deliver the project to be certified to the international environmental management systems standard AS/NZS ISO 14001
- require the Alliance to conduct its activities under the construction company's certified environmental management system and the appropriate elements of the LXRA-EMF
- specify the obligations on all Alliance partners for project design and delivery, specifically requiring the Alliance to comply with this EMF (including the EPRs), as well as legislation and conditions associated with project approvals
- prepare and implement project-specific environmental management documentation as set out within this EMF and as appropriate for the design and construction of the projects.

The Alliance would be responsible for preparing the CEMP and other environmental management documentation, which is subject to the approval requirements set out in Table 9.4. This documentation would govern the management of all project activities to ensure that all applicable requirements are met. It would apply to the projects regardless of the detailed designs and construction methods, and would establish how the environmental outcomes defined by the EPRs would be achieved.

The documentation itself, and the implementation of documented controls, would be subject to compliance audits, as required by the LXRA-EMF.

The governance framework is shown in Figure 9.1.

Figure 9.1 Governance framework



9.7 Roles and responsibilities

This section outlines the roles and responsibilities for environmental management in the design and construction of the projects. Roles and responsibilities for preparing and approving specific management plans required under the Incorporated Documents are set out in Section 9.8 of this EMF.

LXRA, on behalf of the Victorian Government, is responsible for delivering the projects in line with the requirements and objectives of the Level Crossings Removal Program and the Victorian Government.

LXRA is an Administrative Office in relation to the Department of Economic Development, Jobs, Transport (DEDJTR) (established under the Office of the Coordinator General), and is one of several agencies assisting the Victorian Government to achieve its integrated transport policy objectives. The LXRA Chief Executive Officer is accountable to the Minister for Public Transport, reporting to the Secretary of DEDJTR.

LXRA is responsible for overseeing and engaging contractors and consultants for all aspects of the projects. This includes site investigations, stakeholder engagement, preparing the EES that informs subsequent statutory approvals, obtaining key planning approvals and procurement, through to construction delivery and project commissioning. LXRA also supports the Secretary of DEDJTR in his capacity as project authority, charged with statutory responsibility for delivering the projects, under the *Major Transport Projects Facilitation Act 2009*.

Fulfilling the responsibilities and accountabilities across all elements of the EMF involves LXRA, the Alliance (including the construction contractor) and regulators. The contractor's responsibilities would be included as contractual requirements in the PAA. The Alliance would be responsible for activities conducted by its subcontractors.

At the completion of construction and project commissioning, the relevant rail infrastructure manager would become responsible for the ongoing operation and maintenance of the infrastructure delivered by the projects.

The key roles and responsibilities for environmental management are shown in Table 9.1.

Table 9.1 Organisational roles and responsibilities for environmental management

Topic	Key finding
Minister for Planning	<ul style="list-style-type: none"> • Approve the EMF and EPRs, and any amendments to these.
Commonwealth Minister for Environment and Energy	<ul style="list-style-type: none"> • Review conformance with the EPBC Approval.
Regulators and Agencies	<ul style="list-style-type: none"> • Administer and determine compliance with project approvals.
LXRA	<ul style="list-style-type: none"> • Obtain applicable project-wide statutory approvals, as required, generally including the Planning Scheme Amendments and Cultural Heritage Management Plan, where it is appropriate for LXRA to obtain such approvals outside of the Alliance. • Establish the EMF for approval by the Minister for Planning as required by the Incorporated Documents. • Implement its responsibilities under the EMF. • Establish the Urban Design Guidelines for the projects. • Monitor compliance with the EPRs. • As an Alliance member, develop and submit the required plans to comply with the requirements of the Incorporated Documents and this EMF. • Review and approve contract documentation required by the PAA for both projects in accordance with this EMF, including the CEMP and associated sub-plans. • Prior to and during construction, verify that the Alliance has complied with the relevant EPRs and other legal requirements relevant to environmental management. • Ensure audits are conducted of the Alliance's environmental performance, consistent with the requirements of the LXRA-EMF. • Review the Alliance's performance against the approved EPRs and take corrective action as necessary.
Rail infrastructure manager	<ul style="list-style-type: none"> • Operate and maintain the rail infrastructure.

Topic	Key finding
Alliance	<ul style="list-style-type: none"> • Comply with its responsibilities under this EMF (including the EPRs) and legislative and approval requirements (i.e. conditions associated with project approvals). • Obtain any additional permits, consents or approvals required to design and construct the projects from regulatory authorities (other than the approvals that would be obtained by or jointly with LXRA). The full suite of approval requirements are set out in Attachment I <i>Legislation and Policy Report</i>. • Apply the Alliance construction partner's EMS to the specific activities for the projects, in accordance with AS/NZS ISO 14001: 2015. • Prepare a CEMP and other plans set out in this EMF, including any specific plans required by the Incorporated Documents and the EPRs. • Provide adequate resources to establish, implement, maintain and improve the EMS, CEMP, and other plans as required by statutory approvals, EPRs and PAA. • Implement and maintain compliance with the EPRs applicable to the Alliance. • Undertake environmental audits to confirm compliance with the EMF, EPRs and plans required by the Incorporated Documents. • Prior to and during construction, ensure that the Alliance and its subcontractors have complied with the relevant EPRs, CEMP and other plans as required by the Incorporated Documents, EPRs or project contracts. • Review subcontractors' performance against the EPRs and CEMP, and take corrective action as necessary.

9.8 Environmental management plans and documentation

This section provides an overview of how the environmental management systems and plans required under this EMF would be documented. It describes the process for preparing the systems and plans, who is responsible for preparing and approving them, and when they would be prepared and approved.

9.8.1 Overview

The EMF would be implemented through an environmental management system, a CEMP and other plans that would be documented and prepared by LXRA (on behalf of the Victorian Government) and by the Alliance (including the construction contractor). These plans would also be designed to implement and achieve compliance with the LXRA-EMF and with relevant legislation and the other requirements of the Incorporated Documents (refer to Figure 9.1).

The LXRA-EMF (aligned to AS/NZS ISO 14001: 2015 *Environmental management systems –requirements with guidance for use*) sets out environmental management responsibilities and compliance for all parties, including the contractor.

Additional project-specific strategies and plans include the Cultural Heritage Management Plan (CHMP) and the Urban Design Guidelines (UDGs).

At the state level, LXRA would be accountable for implementing the EPRs and compliance with statutory decisions and approvals. LXRA would also be responsible for administering the PAA on behalf of the Victorian Government in accordance with its corporate procedures.

The Alliance would be required to apply the construction contractor's existing EMS to the specific activities for construction of the projects. The contractor must have an EMS that is certified to AS/NZS ISO 14001: 2015. The purpose of the EMS would be to establish a system whereby environmental risks and impacts are managed, and ensure there is a process for identifying opportunities of continual improvement across the projects.

The Alliance would prepare plans to comply with the approval requirements of the planning controls applied under the Incorporated Documents. The Alliance would also be required to prepare a CEMP and other plans required by the EPRs for the construction phase.

For the operations phase, any ongoing responsibility for any residual monitoring or maintenance requirements relevant to environmental management would be in accordance with pre-existing roles and responsibilities and management systems implemented by the rail infrastructure manager.

LXRA and the contractors would develop and implement environmental management plans and programs generally in accordance with the processes in Section 9.8.3, and the approval and timing requirements in Section 9.8.4.

There are a number of levels of plans required for delivery of the projects as summarised in Table 9.2.

A detailed description of the key documentation elements of the EMF is provided in Section 9.8.3.

9.8.2 Managing groundwater impacts

This EMF provides a tiered approach to managing impacts that result from potential changes to groundwater quality and levels, as a result of the projects.

The tiered approach recognises that changes to groundwater quality and levels are likely to have different impacts on different aspects of the environment.

To manage this, an overarching Groundwater Management and Monitoring Plan would be prepared prior to commencement of construction of relevant works. The Groundwater Management and Monitoring Plan would include specific triggers, based on observed changes to groundwater level and quality, for specific mitigation measures to be implemented.

Specific mitigation plans would be prepared prior to handover of relevant works to the rail infrastructure manager to manage specific aspects of the environment, in accordance with the EPRs for those aspects. The proposal for a number of mitigation plans recognises that ecological impacts are different from groundwater quality impacts and that the stakeholders concerned have different interests. These plans would be prepared in consultation with the agencies with jurisdiction over those aspects of the environment. While the environmental assessment of the projects indicates that there is a low potential for any further mitigations to be required, LXRA has adopted a conservative approach in proposing that these contingency plans be prepared.

The tiered approach is set out in Table 9.2.

Table 9.2 Organisational roles and responsibilities for environmental management

Description	Plans
1. Strategic framework Plans that set the strategic direction and governance of the projects.	<ul style="list-style-type: none"> • Environmental Management Framework with EPRs. • Urban Design Guidelines.
2. Management of broad impacts Plans to guide specific programs or works to manage potential impacts on the environment or community broadly.	<ul style="list-style-type: none"> • Construction Environmental Management Plan. • Community and Stakeholder Engagement Management Plan. • Construction Noise and Vibration Management Plan. • Cultural Heritage Management Plan.
3. Management of groundwater impacts Plan that sets out the requirements for monitoring groundwater level and quality, and sets of criteria for when Groundwater Mitigation Plans should be implemented.	<ul style="list-style-type: none"> • Groundwater Management and Monitoring Plan (EPR_GW3).
4. Mitigation plans Specific plans to be implemented if the criteria for changes to groundwater level and quality are met. Each plan deals with a specific aspect of the environment.	<ul style="list-style-type: none"> • Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (Foreshore Native Vegetation) (EPR_FF7). • Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (Edithvale-Seaford Wetlands) (EPR_FF8). • Groundwater Quality Plan (EPR_CL5).
5. Technical plans Specific plans required by the EMF and EPRs.	<ul style="list-style-type: none"> • Transport Management Plan. • All other plans required by EPRs. These plans would describe the Alliance's methods of implementing the EMF and other regulatory requirements rather than the strategic direction and governing requirements for the projects, or matters of less broad community impact.

9.8.3 Process for developing key plans

The key environmental management documents and the process for developing plans are outlined in Table 9.3.

Table 9.3 Key environmental management documentation

Documentation	Description
State of Victoria (LXRA)	
Environmental Management Framework	This document provides the governance framework to manage environmental aspects as identified through the EES process, including the Minister for Planning's Assessment for the projects.
Environmental Performance Requirements (part of the EMF)	<p>EPRs (Table 9.5) have been developed through the EES and associated consultation processes, and to inform the Minister for Planning's assessment of the EES, the requirements of the Incorporated Documents and the EPBC Approval.</p> <p>EPRs define the project-wide environmental outcomes that must be achieved during design and construction and operation of the projects (regardless of the solutions adopted).</p>
Groundwater Management and Monitoring Plan	Plan that sets out the requirements for monitoring groundwater level and quality.
Monitoring and mitigation plans	Plans setting out specific mitigation measures if criteria for impact set out in the Groundwater Management and Monitoring Plan are met.
Other decisions and approvals that LXRA is responsible for obtaining	<ul style="list-style-type: none"> • Approval of two planning scheme amendments to implement specific planning controls for the projects, including an Incorporated Document for each project. • EPBC Act decision (controlled action) under the EPBC Act. • Cultural Heritage Management Plan.
Urban Design Guidelines	The project-specific Urban Design Guidelines provide urban design guidance relating to the design and implementation of the projects.
Alliance (including construction contractor)	
Environmental Management System	<p>Consistent with EPR_EMF1, the contractor's EMS will be required to be certified to AS/NZS ISO 14001: 2015 Environmental management systems – requirements with guidance for use.</p> <p>The contractor's existing EMS will be specifically applied to the projects.</p>

Documentation	Description
Alliance (including construction contractor)	
Construction Environmental Management Plan	<p>Consistent with EPR_EMF2, the Alliance (including the construction contractor) must prepare a CEMP, in accordance with applicable EPRs. The CEMP would reflect the requirements of the EMF and EPA Victoria Publication No. 480 <i>Environmental Guidelines for Major Construction Sites</i>. The CEMP would be developed to take into account:</p> <ul style="list-style-type: none"> • each construction site's environmental features • the nature of the works to be undertaken • potential environmental impacts as identified in the EES and activity-specific environmental risks • permits and/or approvals and related approval requirements • the findings of environmental investigations undertaken by or on behalf of LXRA • the findings of any environmental investigations undertaken by the Alliance. <p>The Alliance may choose to develop one CEMP for its entire package of works or individual CEMPs for each component of the works. Similarly, the Alliance may choose to address all of the above environmental impacts within one CEMP or a series of sub-plans for each environmental value. The exception to this is where an EPR requires the development of a specific management plan.</p> <p>A CEMP will be developed once the detailed design and refined construction methodology is prepared by the Alliance.</p> <p>A CEMP will be prepared in consultation with agencies relevant to each plan including Kingston City Council, Heritage Victoria, VicRoads, Melbourne Water, Public Transport Victoria and EPA Victoria and key affected stakeholders, as required under the Incorporated Document and any relevant EPR.</p> <p>The CEMP would include a mechanism to ensure comments and complaints from the community are considered and responded to.</p> <p>Note – not all plans required by the EPRs or the Incorporated Document will be sub-plans to the CEMP. The structure of plans and sub-plans will be determined by the Alliance to allow for an integrated approach to addressing and managing impacts across the various plans.</p>
Community and Stakeholder Engagement Management Plan	<p>Sets out the principles and framework for community and stakeholder engagement for the projects and addresses the requirements set out in EPR_SC1.</p>
Transport Management Plan/s (TMP)	<p>The TMP(s) will document how the contractor will minimise disruption to traffic, car parking, pedestrian and bicycle movements during construction and address the requirements of EPR_T1.</p> <p>It addresses all modes of active and passive transport.</p> <p>A TMP will be developed once the detailed design and refined construction methodology is prepared.</p> <p>A TMP will be prepared in consultation with agencies relevant to the plan including relevant Kingston City Council, VicRoads, and affected stakeholders as relevant, as required under the Incorporated Document and any relevant EPR.</p>

Documentation	Description
Alliance (including construction contractor)	
Construction Noise and Vibration Management Plan (CNVMP)	<p>Consistent with EPR_NV2, the CNVMP must comply with and address Noise and Vibration EPRs, be informed by the modelling undertaken by the acoustic and vibration consultant and must include (but not be limited to):</p> <ul style="list-style-type: none"> • identification of sensitive receivers along the alignment. • details of construction activities and an indicative schedule for construction works, including the identification of key noise and/or vibration generating construction activities (based on representative construction scenarios, including at ancillary facilities) that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers.
Controlled environmental management documentation subsidiary to the CEMP	Includes procedures, forms, registers and work method statements (describing work activities, approvals required and risk assessment and control measures).
Records and checklists	<ul style="list-style-type: none"> • Monitoring and inspection records. • Checklists (e.g. environmental site inspection checklist). • Records (e.g. training/competency records, waste transport and disposal certificates).

9.8.4 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 9.4. All plans and documentation would be prepared and approved prior to the relevant works commencing.

Revisions to LXRA and Alliance documentation may be required because of changes in activities and work practices, results of monitoring, changes to legislation, risks, or as a result of findings from internal or external audits, incidents or complaints. The Alliance's EMS and CEMP (and other plans as required by the EPRs) would be controlled documents and would be developed, approved, implemented and revised in accordance with Table 9.4.



Table 9.4 Key construction phase environmental management documentation approval requirements

Document	Version	Minister for Planning	State of Victoria (LXRA)	Alliance
Environmental Management Framework with EPRs	<ul style="list-style-type: none"> Initial EMF and EPRs. A revision to the EMF. 	Approve	Prepare	Comply with
Contractor's Environmental Management System	<ul style="list-style-type: none"> Current version. 	–	Review and evaluate	Provide and implement
Construction Environment Management Plan (CEMP)	<ul style="list-style-type: none"> Initial CEMP. A revision to the CEMP. 	–	Approve	Provide and implement
Implementation of approved CEMP	<ul style="list-style-type: none"> CEMP is to be implemented prior to carrying out substantial works and audited for compliance. 	–	Review and evaluate	Provide and implement
Community and Stakeholder Engagement Management Plan (CSEMP)	<ul style="list-style-type: none"> Initial CSEMP. A revision to the CSEMP. 	–	Approve	Provide and implement
Transport Management Plan(s)	<ul style="list-style-type: none"> Initial TMP. A revision to the TMP. 	–	Approve	Provide and implement
Construction Noise and Vibration Management Plan	<ul style="list-style-type: none"> Initial CNVMP. A revision to the CNVMP. 	–	Approve	Provide and implement

9.8.5 Contingency measures

The CEMP and plans required to comply with the Incorporated Document and EPRs will include appropriate contingency measures to address identified environmental, social and business risks. Contingency measures may be required to take effect in the event that monitoring or auditing (or any other means) identifies:

- unforeseen issues, or
- issues which are foreseeable but not expected to occur, or
- impacts which are expected but which prove greater than anticipated.

Contingency measures will be developed to comply with relevant regulations, standards and industry best practice guidelines.

Examples of potential contingency measures include protocols for management of groundwater (EPR reference GW3), managing the discovery of previously unidentified historical archaeological sites (EPR reference HH1) and a plan to address the containment, treatment and disposal of any fuel and chemical spills (EPR reference CL3). Contingency measures would also be a key part of the Cultural Heritage Management Plan for managing the discovery of previously unidentified Aboriginal heritage sites (EPR reference AH1).



9.8.6 Consultation

The Alliance is required to prepare a comprehensive CSEMP to sit alongside the CEMP that would set out the specific actions, requirements and processes to engage with the community and other stakeholders (such as local businesses and community and special interest groups). This is to ensure that they are kept informed of the projects' works as they progress. The CSEMP would reflect the requirements of LXRA's overarching Community and Stakeholder Engagement Plan and apply them to the site-specific context.

The CSEMP would include:

- procedures and requirements around notifications in advance of potentially impactful works (such as road closures or night-time noise)
- management of the closure of the railway, pedestrian and cyclist access and roads
- changes to cycling and/or pedestrian access.

Further information is presented in Chapter 12 *Community and stakeholder engagement*.

The Alliance would prepare a complaints management procedure as part of the CSEMP to ensure that complaints from the community regarding environmental performance during construction are logged, assigned a priority level, communicated to the relevant personnel within the Alliance to determine and implement the appropriate response, and that feedback to the complainant is provided and recorded. The complaints management procedure would also include timeframes for responding to complaints. The procedure would integrate with the CEMP so that it includes the necessary procedures for resolving, monitoring and recording environmental complaints.

9.9 Evaluating environmental performance

This section identifies the requirements for monitoring, reporting and auditing of compliance with the EMF, the EPRs, and the Incorporated Documents.

The PAA would specify compliance requirements for the Alliance (including the construction contractor) including monitoring, reporting to LXRA and relevant government agencies, and environmental auditing.

A summary of these compliance requirements is provided in this section. The CEMP would describe the Alliance's environmental compliance system, including:

- definitions of what constitutes a non-conformance
- requirement for a non-conformance tracking register
- timeframes and responsibilities for addressing non-conformances
- detailed procedures for monitoring, auditing and reporting, including the handling of complaints in relation to non-conformances with EPRs and the Incorporated Documents.

This section identifies the requirements for monitoring, reporting and auditing of compliance with this EMF.

9.9.1 Monitoring

The monitoring requirements would be specified in the CEMP and any other plans required to comply with the Incorporated Document, the EPRs, and relevant planning, environmental and heritage approvals.

The parameters to be monitored and the frequency of monitoring would reflect regulatory requirements and the level of potential risk to the environment. Monitoring would include periodic inspections of construction works areas.

The CEMP and on-the-ground construction activities would be reviewed regularly to verify that:

- the monitoring frequency is sufficient to identify whether any non-conformances with the EPRs, Incorporated Documents and legislation and regulations (including conditions of planning, environmental and heritage approvals) that have occurred
- the range of parameters being monitored is adequate (this is particularly relevant if an activity has led to an incident or complaint)
- changes to programmed construction activities are adequately covered by the monitoring programs
- any proposed modifications to monitoring programs will be submitted to LXRA for approval prior to being implemented. The Alliance would be responsible for the ongoing management of baseline and monitoring data to ensure the transparency and accountability of environmental management.

9.9.2 Reporting

Performance against the CEMP and other plans required to comply with the Incorporated Documents and EPRs would be reported to LXRA and relevant government agencies as appropriate. The CEMP would describe the reporting and external notification requirements, including what needs to be reported and to whom, and the timeframe for reporting.

Reporting and notification requirements would include, but not be limited to:

- monthly environmental performance reports submitted to LXRA. This report would include audit findings, monitoring results and incidents and non-compliances
- notification to LXRA and third-party regulators (as appropriate) in the event of environmental incidents, non-compliances, non-conformities or the discovery of previously unknown assets (i.e. heritage artefacts), in accordance with the CEMP and requirements of relevant legislation and approvals.

9.9.3 Peer review

Where required by the EPRs, the design and environmental management and monitoring approach to avoiding and minimising impacts to groundwater and associated beneficial uses would be subject to independent peer review. This would provide further assurance of appropriate management of a key environmental aspect of the projects.

9.9.4 Auditing

Audits would be conducted by the appointed Alliance to monitor environmental performance, and to ensure continued conformance with legislative, contractual and management system obligations. The level of audit activity outlined below is considered to be appropriate for the duration, scale and complexity of the construction work associated with the projects.

LXRA would participate in the Alliance's audit program.

The scope of each audit would typically involve an evaluation of the following:

- conformance with the EMS and CEMP
- contractual requirements
- compliance with the EPRs and any plans required to comply with the EPRs
- compliance with planning, environmental and heritage approvals
- responses to non-conformances, incidents, and complaints received
- effective implementation of monitoring programs
- compliance with the Incorporated Documents.

The projects would be subject to an audit within three months of commencement of project works (i.e. site establishment activities such as set-up/mobilisation, establishing no-go-zones and laydown areas etc). As a minimum, audits would be scheduled to coincide with the commencement of key activities and the use of key equipment, and would be conducted on a quarterly basis (and more frequently where necessary) through delivery. A final audit would be undertaken upon or nearing completion to ensure all project requirements have been met, and the constructed assets can be handed over to the end asset owner.

The results of each audit would be presented in an audit report. Compliance would be assessed through observation of project activities, interviews and review of records. Records would include the following:

- environmental monitoring, process monitoring and management performance monitoring results
- inspection and audit reports
- soil and waste management records
- all monitoring records as required by the EPRs including noise, vibration, air, etc.
- surveys
- meeting minutes.

Environmental site inspections would also be conducted on a weekly basis by the appointed Alliance to monitor environmental performance. LXRA would also participate in one of the Alliance's weekly site inspections each month. The site inspections would comprise observations made during a site walkover and limited personnel interviews. Where appropriate, the focus of the site inspections would be guided by those activities and locations which represent potentially higher levels of environmental risk.

9.10 Environmental performance requirements

9.10.1 Context

This section summarises the rationale and approach adopted in preparing the EPRs for the projects, and sets out the EPRs in Table 9.5. The projects would be delivered in accordance with approved EPRs that define the project-wide environmental outcomes that must be achieved during design, construction and operation of the projects (regardless of the solutions adopted). This performance-based approach allows for a delivery model with sufficient flexibility to encourage innovation by the private sector to determine how any recommended EPRs would be achieved.

The EES presents a risk-based assessment of environmental effects of the projects, in accordance with the EES Scoping Requirements. Potential mitigation measures are typically included in the EES as examples of how an environmental effect could be mitigated and to illustrate how an EPR could be implemented. However, the EES generally does not mandate or commit to a particular mitigation or management outcome.

In the same manner, the EPRs do not typically mandate or require a particular mitigation or management solution. Instead, the EPRs would be implemented by applying a risk-weighted assessment of the nature and extent of the relevant environmental effects, and the most practicable means of mitigating and managing those effects where required. This would ensure the management and mitigation measures are proportional to the effect they are designed to address and achieve the outcome prescribed by the EPR.

The Incorporated Documents would require the project to be constructed and operated in accordance with the EPRs approved by the Minister for Planning. The Alliance would comply with the EPRs and prepare necessary plans prior to commencement of their scope of work to document the approach to compliance with each EPR. Each Alliance would therefore have its own plans for compliance with EPRs.

Table 9.5 sets out the EPRs that define the environmental performance to be achieved in the design and construction of both projects.

9.10.2 Consultation required by the EPRs

Many EPRs require consultation to be undertaken with relevant stakeholders. The extent of consultation and outcomes would be documented to demonstrate compliance with the EPRs. In instances where the EPRs necessitate the involvement of a 'relevant authority', this is defined as the relevant responsible authority for the requirement specified. The responsible authority may be the Minister for Planning, Kingston City Council, Melbourne Water, EPA Victoria, VicRoads, Aboriginal Victoria or Heritage Victoria.

Consultation required under the EPRs may include meetings, workshops and exchange of documentation and correspondence between LXRA 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.

Where an EPR is expressed as requiring or being subject to the agreement of a stakeholder, LXRA must use reasonable endeavours to reach agreement with that stakeholder to satisfy the EPR. If LXRA uses such reasonable endeavours but is unable to reach an agreement with the stakeholder, it may submit a request to the Minister for Planning to amend or remove the relevant EPRs (as part of the EMF) under the relevant clauses of the Incorporated Documents. Such a request must be accompanied by a written explanation of the reasonable endeavours used by LXRA in reaching an agreement on the subject matter of the EPR, and the stakeholders' responses.

9.10.3 Risk assessment

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 *Assessment framework*, the objective of the environmental risk assessment was to identify key social, environmental and business risks associated with construction and operation of the projects, and to develop management and mitigation measures to reduce these risks. Attachment II *Environmental Risk Report* contains further detail on the risk assessment and the complete risk register developed for the EES.

As part of the CEMP, the Alliance would be required to develop a detailed environmental risk assessment based on the detailed design of the projects and consider the risks identified in the EES. The risk assessment would be required to be consistent with AS/NZS ISO 31000 : 2009 *Risk management – principles and guidelines*. The Alliance would be required to maintain a current risk register which would be considered a 'live' document, adopting regular reviews and updating the register in response to changes to design, construction or operational activities, work methods, new technology, legislation and policy, or the occurrence of incidents or complaints.

The risk assessment would link risks to the relevant EPRs to define the standard of management to be achieved to manage potential impacts. If, through review of the risk assessment, additional or modified EPRs are required, the EPRs would be revised and re-submitted to the Minister for Planning for approval (as described in Table 9.4).

Table 9.5 Environmental performance requirements

EPR		Discipline
AH1	Cultural Heritage Management Plan Comply with and implement any Cultural Heritage Management Plan approved under the <i>Aboriginal Heritage Act 2006</i> that applies to the projects.	Aboriginal heritage
AQ1	Air quality (construction) Manage construction activities to minimise dust, odour and other emissions in accordance with EPA Victoria Publication 480 <i>Environmental Guidelines for Major Construction Sites</i> .	Air Quality
AQ2	Air quality management Control the emission of smoke, dust, fumes and other pollution into the atmosphere during construction and operation, in accordance with the State Environment Protection Policy (Air Quality Management 2001) and State Environment Protection Policy (Ambient Air Quality) 1999.	Air Quality
B1	Business Disruption Plan Minimise impacts to local business through preparation and implementation of a business disruption plan. The business disruption plan must be consistent with an approved Community and Stakeholder Engagement Management Plan (EPR reference SC1) and include: <ul style="list-style-type: none"> a. transport planning prior to road closures to minimise impacts to business access and parking (EPR reference T1) b. a process for communication with traders and businesses c. management of potential amenity impacts during construction (EPR references AQ1, AQ2, NV2, and NV3). 	Business
CL1	Spoil Management Plan Prior to construction (excluding preparatory works), prepare and implement a Spoil Management Plan(s) in accordance with relevant regulations, standards or best practice guidelines. The plan must be developed in consultation with EPA Victoria. The plan shall be prepared prior to the commencement of construction (excluding preparatory works) and include: <ul style="list-style-type: none"> a. applicable regulatory requirements b. identifying nature and extent of spoil (clean fill and contaminated spoil) across the construction areas c. roles and responsibilities d. identification of management measures for storage, handling and transport of spoil for the protection of health, amenity and the environment e. identification, design and development of specific management measures for temporary stockpile areas f. identifying potential sites for management for disposal of any spoil g. monitoring and reporting requirements h. identifying locations and extent of any prescribed industrial waste (including asbestos) and characterising prescribed industrial waste prior to excavation i. identifying suitable sites for disposal of prescribed industrial waste The Spoil Management Plan shall include an Acid Sulfate Soil Management Plan (refer to EPR reference CL2).	CASS/ Contamination/ Spoil

EPR	Discipline
<p>CL2</p> <p>Acid Sulfate Soil Management Plan</p> <p>Prepare and implement an Acid Sulfate Soil Management Plan prior to construction of the project to the satisfaction of EPA Victoria, in accordance with the Industrial Waste Management Policy (<i>Waste Acid Sulfate Soils</i>) 1999, EPA Victoria Publication 655.1 <i>Acid Sulfate Soil and Rock</i>, and relevant EPA regulations, standards and best practice guidance in consultation with EPA Victoria. This plan will include:</p> <ul style="list-style-type: none"> a. identify locations and extent of potential acid sulfate soils. b. assess potential impact for human health, odour and the environment c. identify and implement measures to prevent oxidation of acid sulfate soils wherever possible d. identify suitable sites for management, reuse or disposal of acid sulfate soils. 	<p>CASS/ Contamination/ Spoil</p>
<p>CL3</p> <p>Waste management</p> <p>Manage wastes during the construction of the projects through development and implementation of a Construction Environmental Management Plan in accordance with EPA Victoria Publication 480 <i>Environmental Guidelines for Major Construction Sites</i> 1996, EPA Victoria Publication 347.1 <i>Bunding</i> 2015, Australian Standard AS1940 <i>Storage and Handling of Flammable and Combustible Liquids</i>, and relevant EPA Victoria and Victorian WorkCover Authority regulations, standards and best practice guidance that includes:</p> <ul style="list-style-type: none"> a. application of the waste management hierarchy in assessing waste management options b. contamination and waste management requirements (e.g. use of waste and recycling facilities, maintenance of a clean site policy) c. designated vehicle refuelling area d. chemical management procedures, such as minimising use and storage of chemicals on site, bunded storage facilities to ensure spills, washing residues, slurries or other contaminated water can be contained, and are managed/disposed of appropriately e. location and type of spill kits required f. staff training and competence requirements g. use of well-maintained plant to minimise the potential for spills to occur h. procedures to remove, treat and/or dispose soil that becomes contaminated due to a fuel or chemical spill i. storage of litter in bins from which it cannot escape (temporary fencing may be used as a secondary containment measure for litter). 	<p>CASS/ Contamination/ Spoil</p>

EPR	Discipline
<p>CL4 Acidic and/or contaminated groundwater (construction)</p> <p>Develop and implement measures to manage acidic and/or contaminated groundwater, in accordance with the State Environment Protection Policy (Groundwaters of Victoria) 1997, State Environment Protection Policy (Waters of Victoria) 2004, State Environment Protection Policy (Prevention and Management of Contamination of Land) 2002, Water Industry Regulations 2006, and relevant EPA Victoria regulations, standards and best practice guidance, which must include:</p> <ol style="list-style-type: none"> a baseline groundwater quality assessment (taking into account site history) at least three months prior to commencement of construction works, where applicable implementing a system to manage and/or dispose of intercepted groundwater (if required) which may be a trade waste agreement with relevant utility authority or other measures in accordance with relevant guidelines and legislation (if a trade waste agreement is not granted) collection, treatment, disposal and handling of contaminated groundwater and/or slurries, including vapours monitoring of intercepted groundwater quality monitoring during construction and water quality monitoring at run-off containment areas implementing contamination plume management (if required) treating and monitoring impacted groundwater (including vapours) prior to disposal, in accordance with licence and/or agreement. 	<p>CASS/ Contamination/ Spoil</p>
<p>CL5 Acidic and/or contaminated groundwater (operation)</p> <p>Prepare and fund the implementation of a Groundwater Quality Mitigation Plan in consultation with the land manager of any affected land parcels to manage and mitigate any impacts from changes to groundwater quality and/or levels as a result of the projects.</p> <p>The plan must include:</p> <ol style="list-style-type: none"> measures to maintain or manage the beneficial use of groundwater affected by acidification measures to monitor and manage the beneficial uses of groundwater affected by contaminated groundwater plume migration attributable to the project(s) measures to maintain or manage impacts on beneficial uses as a result of changes to salinity in groundwater that is attributed to the project(s). 	<p>CASS/ Contamination/ Spoil</p>
<p>EMF1 Environmental Management System</p> <p>Implement an Environmental Management System during construction that is certified to AS/NZS ISO 14001: 2015 <i>Environmental management systems - Requirements with guidance for use</i>.</p>	<p>Environmental management</p>
<p>EMF2 Environmental management plans</p> <p>Prepare and implement a Construction Environmental Management Plan(s) and other plans as required by the EPRs.</p> <p>The management plan(s) should be prepared in accordance with EPA Victoria Publication 480 <i>Environmental Guidelines for Major Construction Sites</i> (EPA Victoria 1996).</p> <p>The process for development and implementation of the management plan(s) must include consultation as specified in the Environmental Management Framework, including with the Kingston City Council, VicRoads, Melbourne Water, EPA Victoria, as relevant to their statutory responsibilities.</p> <p>The management plan(s) must be in place prior to commencement of construction excepting ancillary activities, preparatory and enabling works.</p>	<p>Environmental management</p>

EPR		Discipline
EMF3	Environmental incidents Prepare and implement a process for managing environmental incidents including: <ol style="list-style-type: none"> classification and definition of environmental incidents notification requirements (including timing) to LXRA and relevant regulators incident investigation. 	Environmental management
FF1	Native vegetation and habitat Any 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> .	Ecology
FF2	Flora and Fauna Guarantee Act 1988 permits A permit to take and destroy flora species protected under the <i>Flora and Fauna Guarantee Act 1988</i> is required. All permits must be obtained prior to the commencement of works which require approval under the Act.	Ecology
FF3	Weeds and pathogens Develop and implement measures to avoid the spread, or introduction of weeds and pathogens during construction, including vehicle and equipment hygiene.	Ecology
FF4	Fauna Minimise the removal of habitat for fauna. Where fauna habitat is identified for removal, engage a suitably qualified wildlife handler and recovery specialist to check for fauna occupancy and ensure compliance with the <i>Wildlife Act 1975</i> . All necessary authorisations must be obtained prior to commencement of works.	Ecology
FF5	Protection of retained/adjacent vegetation and habitat Minimise or avoid unintended impacts on retained and/or adjacent vegetation and habitat by including measures in the Construction Environmental Management Plan(s) and other plans including tree protection zones, environmental no-go zones, fencing and signage, directional lighting, and best practice spill, sedimentation and water runoff management.	Ecology
FF6	Landscaping for wildlife Incorporate native plant species into landscaping that provide wildlife habitat within level crossing removal project areas where appropriate.	Ecology

EPR	Discipline
<p>FF7 Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (foreshore native vegetation)</p> <p>Prepare and fund the implementation of a Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (Foreshore Native Vegetation) in consultation with the land manager.</p> <p>The plan must:</p> <ol style="list-style-type: none"> identify areas of coastal vegetation potentially impacted by a change to groundwater quality and/or levels as a result of the projects include a process to monitor groundwater to confirm any changes to groundwater quality and/or levels that could result in a loss of coastal native vegetation if required include a process for monitoring coastal native vegetation developed by a suitably qualified ecologist include criteria for determining whether a change in the extent or condition of coastal native vegetation is attributable to the projects include contingency measures to mitigate potential impacts attributable to the projects include the frequency and duration of monitoring if required. <p>The plan would be implemented if trigger levels for changes to groundwater level and quality were identified by the groundwater monitoring program (see EPR reference GW3).</p>	Ecology
<p>FF8 Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (Edithvale Wetland)</p> <p>Prepare and fund the implementation of a Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (Edithvale Wetland) in consultation with the Commonwealth Department of Environment and Energy, Victorian Department of Environment, Land, Water and Planning, and the land manager.</p> <p>The plan must include:</p> <ol style="list-style-type: none"> monitoring of groundwater level and water quality at representative and strategic locations within and around the Edithvale Wetland if required the frequency and duration of monitoring if required monitoring of surface water quality at representative and strategic locations within the wetlands to differentiate temporal trends from long term changes to groundwater if required criteria (levels and quality) for groundwater and surface water in and around the Edithvale Wetland for determining whether a change in groundwater levels and/or quality is attributable to the projects response measures in the event groundwater and surface water change criteria are met, such as: <ol style="list-style-type: none"> a process for ecological assessment developed by a suitably qualified ecologist to assess changes in aquatic fauna, birds and vegetation and consider whether these can be attributable to groundwater or surface water changes criteria for determining whether a change in the extent or condition of the wetlands is attributable to the projects contingency measures developed by a suitably qualified ecologist that would be implemented to mitigate potential impacts attributable to the projects include the frequency and duration of monitoring. <p>The plan would be implemented if trigger levels for changes to groundwater level and quality were identified by the groundwater monitoring program (see EPR reference GW3).</p>	Ecology

EPR	Discipline
<p>GM1 Pre-construction condition survey</p> <p>Conduct a pre-construction condition survey(s) for assets predicted to be affected by subsidence and/or ground movement.</p> <p>Develop and maintain a database of pre-construction and as-built condition information for each potentially affected structure identified as being in an area susceptible to damage (see EPR reference GM2), specifically including:</p> <ul style="list-style-type: none"> a. identification of structures/assets which may be susceptible to damage resulting from subsidence or ground movement resulting from project works b. results of pre-construction condition surveys of structures, pavements, significant utilities and heritage overlay sites to establish baseline conditions and potential vulnerabilities c. records of consultation with land owners in relation to the condition surveys d. post-construction stage condition surveys conducted, where required, to ascertain if any damage has been caused as a result of project works e. share pre- and post-condition assessments and records of consultation with the property owner proactively f. ensure all stakeholder engagement activities are undertaken in accordance with the delivery partner's Community and Stakeholder Engagement Management Plan (see EPR reference SC1). 	Land stability
<p>GM2 Repairs to properties due to vibration, subsidence or ground movement</p> <p>For properties and assets affected by vibration, subsidence or ground movement, undertake required repair works or other actions as agreed with the property owner, where impacts are attributable to the project.</p>	Land stability
<p>GW1 Rail trench design</p> <p>The projects will be designed as rail trenches to meet applicable design standards and comply with the EPRs developed for the projects.</p>	Groundwater
<p>GW2 Groundwater performance outcomes</p> <p>The tanked rail trenches at Edithvale and Bonbeach must be designed to ensure that changes to ground water levels as a result of the projects do not result in:</p> <ul style="list-style-type: none"> a. groundwater mounding that increase waterlogging at ground level b. groundwater drawdown that could cause ground subsidence and adverse impact to subsurface structures c. degradation to groundwater quality that would preclude protected beneficial uses of groundwater (salinity, contaminants, coastal acid sulfate soils) d. changes to groundwater that would have significant impacts on groundwater dependent ecosystems <p>The performance of the installed rail trench will be monitored to confirm it is not having any impacts on groundwater levels and quality beyond those set out above (EPR reference GW3). Further monitoring and mitigation measures would be implemented if a change to groundwater level or quality that is not in accordance with this EPR is observed (EPR references FF7, FF8, CL5).</p>	Groundwater

EPR	Discipline
<p>GW3 Groundwater Management and Monitoring Plan</p> <p>Prior to construction (excluding preparatory works), prepare and fund the implementation of a Groundwater Management and Monitoring Plan to the satisfaction of EPA Victoria and relevant water authorities to manage predicted and potential impacts to groundwater following construction of the piled trench walls.</p> <p>The Groundwater Management and Monitoring Plan must be prepared prior to the construction of the pile walls and must include:</p> <ul style="list-style-type: none"> a. detailed monitoring parameters including timing and location of monitoring bores b. duration of the monitoring program c. clear trigger levels for changes in groundwater level and quality that require mitigation plans to be implemented. <p>The following plans for the monitoring and mitigation of impacts to specific environmental assets must be prepared prior to handover of the constructed asset to the rail infrastructure asset manager:</p> <ul style="list-style-type: none"> a. Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (foreshore native vegetation) (EPR reference FF7) b. Groundwater Dependent Ecosystem Monitoring and Mitigation Plan (Edithvale Wetland) (EPR reference FF8) c. Groundwater Quality Mitigation Plan (EPR reference CL5). <p>The plans would be implemented if trigger levels for changes to groundwater level and quality were identified by the groundwater monitoring program.</p> <p>The Groundwater Management and Monitoring Plan must include a program of monitoring for at least 10 years.</p>	Groundwater
<p>GW4 Independent peer review</p> <p>Prior to construction of the trench, independent peer reviews by an appropriately qualified specialist must be undertaken of the following:</p> <ul style="list-style-type: none"> a. the proposed design of the Edithvale project to confirm that the proposed design is capable of achieving EPR reference GW2 b. the Groundwater Management and Monitoring Plan (EPR reference GW3). 	Groundwater
<p>HH1 Unidentified historical archaeological sites</p> <p>Minimise impacts on any unidentified historical archaeological sites and values discovered during construction through the development and implementation of an archaeological discovery protocol. The management protocol would be consistent with the <i>Heritage Act 2017</i> and developed in consultation with Heritage Victoria, and include a procedure for ceasing work if remains are discovered, notifying Heritage Victoria, obtaining consent and dealing with remains.</p>	Historic heritage
<p>HH2 Heritage overlay sites</p> <p>Avoid adverse impacts to the Chelsea Clock Tower and Chelsea Railway Station during construction through the implementation of no-go zones through the environmental management plan(s) and other plans if required. Undertake a pre-condition survey in accordance with EPR reference GM1.</p>	Historic heritage



EPR		Discipline
HH3	Heritage values Avoid or minimise, to the extent practicable, adverse visual impacts on adjoining heritage places, and maintain landscape character and significant heritage precinct values (where relevant) by applying the urban design framework and project specific Urban Design Guidelines during the design development process.	Historic heritage
LP1	Land use (construction) The construction approach should: <ul style="list-style-type: none"> a. avoid or minimise impacts to existing land uses on private and public land (including public open space) from temporary works and permanent structures as far as practicable b. reduce the disruption, to the extent practicable, to current users of public and council land resulting from temporary occupation c. include opportunities to implement landscaping enhancement. 	Land Use
LV1	Landscape and visual opportunities Minimise negative landscape and visual impacts, and maximise opportunities for enhancement of public amenity and facilities to the extent practicable, through the application of the Urban Design Guidelines specific to each project in consultation with relevant stakeholders, including Kingston City Council.	LVIA
LV2	Lighting Design lighting used during operation of permanent structures in accordance with relevant standards to minimise light spillage and protect the amenity of adjacent land uses to the extent practicable.	LVIA

EPR		Discipline									
LV3	<p>Light spillage</p> <p>Light spillage must be minimised during construction to protect the amenity of adjacent land uses to the extent practicable.</p> <p>The environmental management plan(s) and other plans must include requirements and methods to minimise light spillage, to the extent practicable, during construction to protect the amenity of adjacent and surrounding residential land uses, neighbourhoods, parks, community facilities including urban environments, and any known significant native fauna habitat, in consultation with relevant stakeholders.</p>	LVIA									
NV1	<p>Operational noise</p> <p>Design must ensure airborne noise generated by train movements at sensitive receptor locations are in accordance with the Passenger Rail Infrastructure Noise Policy 2013.</p> <table><tr><th>Time</th><th>Type of receiver</th><th>Investigation thresholds</th></tr><tr><td>Day (6am – 10pm)</td><td><ul style="list-style-type: none">Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parksNoise-sensitive community buildings, including schools, kindergartens, libraries</td><td>65 dBL_{Aeq} and a change in 3 dB(A) or more or 85 dBL_{Amax} and a change in 3 dB(A) or more</td></tr><tr><td>Night (10pm – 6am)</td><td><ul style="list-style-type: none">Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks</td><td>60 dBL_{Aeq} and a change in 3 dB(A) or more or 85 dBL_{Amax} and a change in 3 dB(A) or more</td></tr></table> <p>Design fixed assets to achieve compliance with State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) No. N-1.</p>	Time	Type of receiver	Investigation thresholds	Day (6am – 10pm)	<ul style="list-style-type: none">Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parksNoise-sensitive community buildings, including schools, kindergartens, libraries	65 dBL _{Aeq} and a change in 3 dB(A) or more or 85 dBL _{Amax} and a change in 3 dB(A) or more	Night (10pm – 6am)	<ul style="list-style-type: none">Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks	60 dBL _{Aeq} and a change in 3 dB(A) or more or 85 dBL _{Amax} and a change in 3 dB(A) or more	Noise /Vibration
Time	Type of receiver	Investigation thresholds									
Day (6am – 10pm)	<ul style="list-style-type: none">Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parksNoise-sensitive community buildings, including schools, kindergartens, libraries	65 dBL _{Aeq} and a change in 3 dB(A) or more or 85 dBL _{Amax} and a change in 3 dB(A) or more									
Night (10pm – 6am)	<ul style="list-style-type: none">Residential dwellings and other buildings where people sleep including aged persons homes, hospitals, motels and caravan parks	60 dBL _{Aeq} and a change in 3 dB(A) or more or 85 dBL _{Amax} and a change in 3 dB(A) or more									

EPR	Discipline
<p>NV2 Construction noise</p> <p>Prior to construction (excluding preparatory works), prepare a Construction Noise and Vibration Management Plan for the projects in consultation with EPA Victoria and Kingston City Council.</p> <p>Manage construction noise and vibration in accordance with EPA Victoria Publication 1254 <i>Noise Control Guidelines, 2008</i> unless otherwise specified in the Construction Noise and Vibration Management Plan prepared for the projects.</p> <p>The Construction Noise and Vibration Management Plan must be prepared prior to commencement of construction (excluding preparatory works) and include:</p> <ol style="list-style-type: none"> the identification of sensitive receptors along the project alignment details of construction activities and an indicative schedule for construction works, including the identification of noise and/or vibration generating construction activities that have the potential to impact sensitive receptors measures to ensure effective monitoring of noise and vibration associated with construction how construction noise (including truck haulage) and vibration will be minimised, including: <ol style="list-style-type: none"> the scheduling of noisy works to typical construction hours where feasible (i.e. Monday to Friday 07:00 am to 6:00 pm, and Saturday 07:00 am to 1:00 pm) limiting night works outside of the main occupation periods the planning of site works to limit vehicle movements to certain locations and time periods the substitution of noisy plant or processes with quieter options (e.g. broadband reversing and movement alarms instead of conventional beepers) the provision of temporary noise barriers where practicable monitoring of noise and/or vibration associated with construction notifying residents who may be impacted by noise and/or vibration in advance of the works a procedure for managing complaints. <p>The plan must outline airborne noise management levels and mitigation measures for evening and night time works. The management level is not a noise limit or target, but represents noise levels above which community reaction may be adverse and which should trigger mitigation actions to minimise the noise impact.</p> <p>Depending on noise levels, noise mitigation measures may include an offer of respite and relocation, in accordance with a Respite and Relocation Policy (see EPR reference SC2) and Community and Stakeholder Engagement Management Plan (see EPR reference SC1).</p>	Noise /Vibration

EPR	Discipline
<p>NV3 Construction vibration</p> <p>Identify potential sensitive receptors (including heritage places) and potential impacts from vibration during the construction period. Where relevant, conduct condition surveys and monitoring of sensitive receptors.</p> <p>If impacts from vibration are anticipated, management and mitigation measures may include:</p> <ul style="list-style-type: none"> a. substituting high vibration plant or processes with lower vibration options b. utilising vibration monitoring to inform management and mitigation c. relocation of residents (EPR reference SC2) d. communication with potentially affected residents in accordance with the Community and Stakeholder Engagement Management Plan (EPR reference SC1). 	Noise /Vibration
<p>SC1 Community and Stakeholder Engagement Management Plan</p> <p>Prior to construction (excluding preparatory works), prepare and implement a Community and Stakeholder Engagement Management Plan in consultation with Kingston City Council that:</p> <ul style="list-style-type: none"> a. identifies all project activities that potentially impact on community and business operations, and provides for well-coordinated communication and engagement processes b. consults with and addresses needs of vulnerable groups that would be impacted by the project such as the elderly, socio-economically disadvantaged groups and children c. consults with and addresses needs of users of community facilities impacted by the project such as schools, child care, aged care, and caravan parks d. sets out processes and measures to provide advanced 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, periods of predicted high noise and vibration activities, including contact details for enquiries/complaints e. provides for any interested stakeholder to register their contact details to ensure they are automatically advised of planned construction activities, project progress, mitigation measures and intended reinstatement measures where applicable f. documents a complaints management process (including processes and measures for registering, managing and resolving complaints) consistent with Australian Standard AS/NZS 10002: 2014 <i>Guidelines for Complaint Management in Organisations</i>. 	Social

EPR	Discipline
<p>SC2 Respite and Relocation Policy</p> <p>Prior to construction (excluding preparatory works), prepare and implement a Respite and Relocation Policy to be offered to residents whose amenity is significantly affected by construction activities (e.g. out of hours works or sustained loss of amenity during the day for residences with special circumstances such as shift workers), or who are subject to loss of access. The Respite and Relocation Policy will only apply during the period in which residents are (or are likely to be) affected.</p> <p>The Policy must contain:</p> <ul style="list-style-type: none"> a. the criteria that must be met for relocation to be offered to affected residents b. consideration of special circumstances such as language or cultural need, special needs related to health conditions or home businesses c. the type and duration of out-of-hours work covered by the policy. 	Social
<p>SC3 Recreational facilities</p> <p>Where construction works directly impact on sports clubs or passive recreation users of directly impacted sporting and recreational facilities, work with affected sporting clubs and land managers to identify appropriate management measures, including provision of alternative facilities for the period of disruption.</p>	Social
<p>SS1 Sustainability</p> <p>Achieve LXRA's sustainability policy to:</p> <ul style="list-style-type: none"> a. demonstrate leadership in the commitment to a prosperous and integrated economic, social and environmentally sustainable future b. seek opportunities to enhance the value of natural systems c. pioneer innovation in sustainable design that seeks continuous improvement. 	Sustainability
<p>SS2 Climate change</p> <p>Design projects in accordance with the most up-to-date climate change assumption guidance provided in the <i>Guidelines for Assessing the Impact of Climate Change on Water Supplies in Victoria</i> (DELWP, 2016) and the <i>Planning for Sea Level Rise Guidelines</i> (Melbourne Water, 2017) in order to manage climate change uncertainty in design, construction and operation.</p>	Sustainability



EPR		Discipline
SW1	Stormwater management - construction 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> 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.	Surface Water
SW2	Water quality - operation The design must include a water collection and treatment system to ensure that stormwater discharges comply with State Environment Protection Policy (Waters of Victoria) 2004 and do not impact beneficial uses of that waterbody. This would include adopting water sensitive urban design and integrated urban water management principles in the stormwater management design, in accordance with the LXRA's Urban Design Framework and the specific Urban Design Guidelines for the projects, and urban stormwater EPA Victoria publication 480 <i>Best Practice Environmental Management Guidelines 1996</i> in consultation with Melbourne Water and Kingston City Council as applicable.	Surface Water
SW3	Drainage network - construction Design surface water discharge to have no adverse impact to the drainage network capacities in consultation with Melbourne Water and Kingston City Council as required.	Surface Water
SW4	Drainage network – operation Design surface water discharge to have no adverse impact to the drainage network capacities in consultation with Melbourne Water and Kingston City Council as required.	Surface Water
SW5	Flood protection - construction Maintain existing levels of flood protection associated with overland flow paths (considering flood levels, flows and velocities) during temporary construction works through compliance with Melbourne Water and Kingston City Council requirements for flooding and overland flows.	Surface Water
SW6	Flood protection - operation Design infrastructure to maintain existing levels of flood protection associated with overland flow paths (considering flood levels, flows and velocities) through compliance with Melbourne Water and Kingston City Council requirements for flooding and overland flows.	Surface Water



EPR	Discipline
<p>T1 Transport Management Plan</p> <p>Prior to the commencement of construction (excluding preparatory works), develop and implement a Transport Management Plan(s) to minimise disruption (to the extent practicable) to affected local land uses, traffic, car parking, on-road public transport, pedestrian and bicycle movements and existing public facilities during all stages of construction. The plan(s) must be developed in consultation with the relevant road management authorities and be informed and supported by an appropriate level of transport analysis. The plan(s) must include:</p> <ul style="list-style-type: none"> a. a monitoring 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 b. consideration of cumulative impacts of other major projects operating concurrently in the local area c. identify the route options for construction vehicles (including haulage of spoil and other heavy materials to and from site) travelling to and from the project construction site, recognising sensitive receptors, and minimising the use of local streets where practicable d. be prepared in consultation with emergency services, develop suitable measures to ensure emergency service access is not inhibited as a result of project construction activities e. allow for the provision of alternative parking where practicable to replace public and commuter parking lost as a result of project construction activities and to prevent construction-related parking on local roads or use of public car parks f. allow for the provision of car parking or park and ride facilities for construction workers g. provisions for the minimisation of impacts on existing connectivity for pedestrians, cyclists, public transport and road vehicles as a result of construction (including laydown areas), including the identification of alternative routes for pedestrians and cyclists and other measures to maintain connectivity and safety for pedestrians and cyclists h. 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 i. an approach for maximising the current road capacity on Nepean Highway and Edithvale Road during peak periods j. 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 k. reinstatement of access to open space, community facilities, commercial premises and dwellings if disrupted, as soon as practicable, and to an equivalent standard l. provision for safe access points to laydown areas and site compounds m. 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 reference SC1). <p>The plan may 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>	<p>Traffic</p>

EPR		Discipline
T2	Public Transport Disruption Management Plan Prior to commencement of works significantly affecting public transport services, develop and implement a plan for minimising disruption to public transport services (rail, bus) resulting from project construction activities. The plan must be developed in consultation with VicTrack, V/Line, Public Transport Victoria, the Department of Economic Development, Jobs, Transport and Resources (Transport) and Metro Trains Melbourne, as relevant.	Traffic
T3	Pedestrian and cyclist connectivity Optimise the design in accordance with the principles and objectives of LXRA's Urban Design Guidelines to maintain and enhance pedestrian and cyclists connectivity in consultation with relevant road authorities, Kingston City Council and Public Transport Victoria where appropriate.	Traffic
T4	Intersection design and performance Intersections must be designed and constructed to provide safe vehicle movements to the satisfaction of the responsible road management authority. Undertake an intersection analysis to ensure acceptable intersection performance.	Traffic
T5	Car parking Where practicable, ensure no net loss in station car parking for rail users upon completion, and car parking must be replaced or reinstated at the earliest opportunity.	Traffic
T6	Vehicle and pedestrian access Where vehicle and pedestrian access are altered during construction, ensure that vehicle and pedestrian access is replaced, in accordance with relevant road design standards.	Traffic
T7	Debris on roads Minimise dirt and debris on the roads from construction activities by measures including: <ul style="list-style-type: none"> a. street sweeping b. covering all truck loads that have the potential to result in debris on public roads c. cleaning vehicles and tyres when leaving construction sites. 	Traffic
T8	Emergency services Maintain vehicular and pedestrian access to hospital emergency departments at all times during construction and to other key health and medical facilities, where practicable.	Traffic

EPR	Discipline
<p>UD1</p> <p>Urban Design Guidelines</p> <p>Design projects in accordance with the LXRA Urban Design Framework and project specific Urban Design Guidelines. The Urban Design Guidelines must consider:</p> <ul style="list-style-type: none"> a. identity b. connectivity and wayfinding c. urban integration d. resilience and sustainability e. amenity f. vibrancy g. safety h. accessibility <p>Seek the advice of the LXRA Urban Design Advisory Panel (chaired by the Office of the Victorian Government Architect, and includes officers of Kingston City Council) during the preparation of detailed design to ensure an appropriate response to the LXRA Urban Design Framework.</p>	Urban design
<p>UD2</p> <p>Hoardings</p> <p>Minimise visual impacts during construction (where possible) with the installation of hoardings. Hoarding must be installed to LXRA's hoarding requirements in consultation with the Kingston City Council.</p>	Urban design

