Document control record

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<th>PMF Classification</th>
<th>Version</th>
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<td>TBC</td>
<td>Status</td>
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**Document and History Status**

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author &amp; Title</th>
<th>Purpose for Issue</th>
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<tr>
<td>IAC</td>
<td>07/10/16</td>
<td>Katie Watt, Manager - Land, Planning and Environment</td>
<td>Issued to IAC</td>
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Note: Sectioning starts at 23 as the Environmental Management Framework was Chapter 23 of the EES.
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23 Environmental Management Framework

23.1 Introduction

This section presents the Environmental Management Framework (EMF) that has been developed for Melbourne Metro. The EMF provides a transparent and integrated governance framework to manage environmental aspects as described in this EES for the design, construction and operational phases of the project. The EMF includes the recommended Environmental Performance Requirements (EPR) that define the project-wide environmental outcomes that must be achieved during design, construction and operation of Melbourne Metro (regardless of the design solutions adopted).

The EMF is required as a condition of the Incorporated Document titled ‘Melbourne Metro Rail Project’ which sets out planning controls for the Project under each relevant planning scheme. Once approved, compliance with the EMF and the Environmental Performance Requirements is required under the Incorporated Document and will be enforced by MMRA on behalf of the State through the contractual arrangements for delivery of the project.

The recommended Environmental Performance Requirements have been developed through the EES, the public hearing process, and ongoing consultation with key stakeholders, to address the identified environmental risks and impacts. The performance-based approach that forms the Environmental Performance Requirements aims to achieve outcomes that provide a net community benefit, while allowing for a delivery model with sufficient flexibility to encourage innovation by the private sector to determine how any recommended Environmental Performance Requirements would be achieved. The EMF outlines clear accountabilities for the delivery and monitoring of the achievement of the Environmental Performance Requirements so that the environmental effects and hazards of the project would be managed.

Design and management measures incorporated into the Concept Design assessed through the EES, together with implementation of and compliance with the EMF and the Environmental Performance Requirements would ensure compliance with statutory requirements during design, construction and operation. The contractual arrangements for delivery of the EMF and Environmental Performance Requirements would be in the form of Project Contracts between MMRA and the contractors delivering the different parts of Melbourne Metro.
The EMF requires that the contractors develop and implement an Environmental Management System (EMS) certified to AS/NZS ISO 14001:2015 *Environmental management systems — Requirements with guidance for use* and consistent with relevant legislation, policy and guidelines and MMRA’s Environmental Policy. The purpose of the EMS is to ensure that works are planned and performed so that the adverse effects on the environment are either avoided or minimised and are carried out in accordance with the approved Environmental Performance Requirements.

The EMS will provide a structured approach for monitoring the implementation of Construction Environmental Management Plans (CEMPs) for project delivery and the Operations Environmental Management Plan (OEMP) for the tunnels and stations. The EMS, CEMPs and OEMP can then be audited throughout the project as a mechanism for continuous improvement. Refer to Sections 23.7 and 23.8 for a description of the management plans and requirements for ongoing monitoring of their implementation.

The development of the EMF is guided by the EES Scoping Requirements, relevant legislation, policy and guidelines, and has been informed by the environmental risk assessment and specialist environmental impact assessment studies completed for the EES. The risk assessment has been undertaken in accordance with the risk management standard AS/NZS/ISO31000:2009 and would be maintained throughout the project in accordance with the MMRA EMS.

### 23.1.1 Works Covered by the EMF

The infrastructure proposed for construction of Melbourne Metro and assessed in this EES includes:

- Twin nine-kilometre rail tunnels from Kensington to South Yarra, travelling beneath Swanston Street in the Melbourne CBD and connecting the Sunbury and Cranbourne/Pakenham railway lines
- Five new underground stations at Arden, Parkville, CBD North, CBD South and Domain, with CBD North and CBD South stations featuring direct interchanges with the existing Melbourne Central station and Flinders Street Station respectively
- A new transport interchange at Domain
- Rail tunnel portals (entrances) at Kensington and South Yarra.

The project would also require track work (a turnback) at West Footscray to enable trains using the Sunbury Line to turn around before reaching Sunbury and head back through the Melbourne Metro tunnels.

The project includes the operation of the five new stations and tunnels; however, it does not include the operation of the whole rail network. Figure 23-1 shows a broad schematic plan for the principal inner Melbourne components of Melbourne Metro.
23.2 Scoping Requirements and EMF Structure

The EES Scoping Requirements relevant to the EMF include the following draft evaluation objective:

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

The EMF outlined in this chapter addresses this objective in the following sections:

- Governance framework and roles and responsibilities to provide a transparent framework for accountability (Section 23.3 and 23.4)
- Environmental risk and impact assessment for identifying potential environmental effects and hazards to be managed (Section 23.5)
- Recommended Environmental Performance Requirements to achieve acceptable environmental outcomes (Section 23.6)
- Document hierarchy to outline how the EMF would be implemented (Section 23.7)
• Environmental Management System for achieving compliance with CEMPs (Section 23.7.1)

• Evaluation and compliance requirements, including monitoring, reporting and auditing (Section 23.8)

• Contingency measures to address identified environmental, social and business risks during construction and operational phases (Section 23.9).

The Incorporated Document also requires:

• The EMF must include Environmental Performance Requirements addressing Transport, Land use and planning, Social and community, Business, Air quality, Noise and vibration, Historical cultural heritage, Aboriginal heritage, Surface water, Ground water, Ground movement, Contaminated land and spoil management, Biodiversity, Greenhouse gas, and any other relevant matters.

• The EMF must set out the process and timing for development of Construction Environment Management Plan/s, Site Environment Implementation Plan/s and Transport Management Plan/s as relevant to any stage or part of the Project, including process and timing for consultation with relevant Council/s, Heritage Victoria, the Roads Corporation, Melbourne Water, Public Transport Development Authority, and the Environment Protection Authority as relevant.

• The EMF must identify the entity responsible for approval of each plan required under this Incorporated Document or the Environmental Performance Requirements, generally in accordance with the table in Appendix 1 to the Incorporated Document.

• The EMF must identify requirements for monitoring, reporting and auditing of compliance with the Environmental Performance Requirements, the Incorporated Document, and each plan set out in the table in Appendix 1 to the Incorporated Document.

23.3 Governance Framework

As discussed in Chapter 1, the Victorian Government has announced the procurement strategy for Melbourne Metro, which is structured around four works packages:

• A Managing Contractor for early works together with procurement by Utility Service Providers and Yarra Trams

• An Availability Public Private Partnership (PPP) for the tunnels and stations

• Competitive alliance for rail infrastructure associated with the eastern and western portals and the western turnback

• Competitive alliance for rail systems for high capacity signalling, rail systems integration and commissioning (outside the scope of the EES).
For each works package, a contractor would be appointed under the contractual framework applicable to the respective procurement model (Project Contract). MMRA would administer each Project Contract on behalf of the State Government.

Project Contracts would detail the applicable contractor’s obligations for delivery of the relevant works. Project Contracts would require each contractor to:

- Comply with the EMF
- Comply with the Environmental Performance Requirements
- Comply with the MMRA EMS
- Develop, implement and maintain a project specific EMS, CEMP for the project and site Specific Environmental Implementation Plans (SEIPs) for the design and construction phases, where applicable.

The PPP contractor would also have to develop, implement and maintain an OEMP for the elements of the infrastructure for which they would be responsible.

The governance framework for Melbourne Metro is presented in Figure 23-2.
A description of each procurement package is provided in Table 1-3 of Chapter 1 Introduction of the EES. The Rail Systems Alliance (RSA) and Rail Infrastructure Alliance (RIA) are proposed to include wider network works that have not been assessed in the EES and for which assessment and approvals would be undertaken separately.

The procurement process for each works package would include the requirement for bidders to develop outline EMPs (as part of the bid submission) for construction and operation (for tunnels and stations). These outline EMPs would enable the contractors to demonstrate their approach to achieving compliance with the EMF. MMRA would review and assess the outline EMPs against the requirements of the EMF.

Following contract award and prior to construction commencing, the successful contractors would be required to develop and implement a project specific EMS and CEMP to meet the requirements of this EMF and the MMRA EMS. The successful PPP contractor would maintain elements of the infrastructure delivered for Melbourne Metro and would also have to develop and implement an OEMP to meet the requirements of the EMF.

The EMS, CEMP and OEMP would describe in detail how the contractor would meet the approved Environmental Performance Requirements and approval conditions and identify, manage and mitigate environmental risks arising during design, construction and operation. Specific requirements for the contractor’s documentation are outlined in Section 23.7.

The PPP contract would require an Independent Reviewer to be appointed by the State and jointly engaged by MMRA and the PPP contractor. The role of the Independent Reviewer would be to review design and construction activities, review and approve (with MMRA) contractor documentation (as detailed in Section 23.7.2) and to monitor compliance with project scope and technical requirements as defined in the Project Contract. Consistent with normal market practice, the Independent Reviewer would certify that the PPP contractor has achieved milestones, and monitor compliance with the Project Agreement.

An Independent Environmental Auditor would be appointed for each of the Early Works, PPP, RIA and RSA contracts. For the PPP contract the role of the Independent Environmental Auditor is additional to the Independent Reviewer. The Independent Environmental Auditor would undertake environmental audits of project activities to verify compliance with the EMF (and Environmental Performance Requirements), environmental management plans and approval conditions. The Independent Environmental Auditor would be required to prepare audit reports and provide these to MMRA, the Independent Reviewer (for the PPP contract), the Minister for Planning and other Regulators and agencies (as appropriate). Further detail is provided in Section 23.8.3.
23.4 Roles and Responsibilities

MMRA, on behalf of the State Government, is the proponent for this project and is responsible for delivering Melbourne Metro in line with the requirements and objectives of PTV and the Victorian Government.

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

MMRA is responsible for overseeing and engaging contractors and consultants for all aspects of the project including planning and development of a project Concept Design, site investigations, stakeholder engagement, obtaining planning approvals and procurement, through to construction delivery and project commissioning.

Fulfilling the responsibilities and accountabilities across all elements of the EMF involves MMRA, contractors and regulators. The contractors’ responsibilities would be included as contractual conditions in Project Contracts. The contractors would also be responsible for activities conducted by their sub-contractors.

At the completion of construction and project commissioning, PTV would become responsible for the ongoing operation and maintenance of the train services and infrastructure delivered by Melbourne Metro, other than any infrastructure which is to be operated and maintained by the PPP contractor for the term of the PPP contract.

The key roles and responsibilities are shown in Table 23–1.

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minister for Planning</td>
<td>• Approve the EMF and Environmental Performance Requirements</td>
</tr>
<tr>
<td>Regulators and Agencies</td>
<td>• Receive audit reports from MMRA and the Independent Auditor as to compliance with relevant approval conditions</td>
</tr>
<tr>
<td></td>
<td>• Administer and determine compliance with project approvals</td>
</tr>
<tr>
<td>Organisation</td>
<td>Responsibility</td>
</tr>
<tr>
<td>--------------</td>
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</table>
| **MMRA**     | • Obtain applicable principal statutory approvals including the Planning Scheme Amendment, Cultural Heritage Management Plan and heritage permits  
• Establish the EMF  
• Develop and implement the MMRA EMS, in accordance with ISO 14001:2015  
• Develop and monitor compliance with the Environmental Performance Requirements across all Project Contracts, and comply with the Environmental Performance Requirements applicable to MMRA  
• Appoint an Independent Reviewer to be engaged jointly with the PPP contractor  
• Together with each contractor for each of the Project Contracts develop and submit the required plans to comply with the PSA conditions  
• Review and approve contract documentation for each Project Contract in accordance with Table 23–5  
• Prior to commencement of work, verify that the contractor has complied with the relevant Environmental Performance Requirements  
• Engage an Independent Environmental Auditor for each of the RIA and RSA contracts  
• Review the contractors’ performance against the approved Environmental Performance Requirements and take corrective action as necessary |
| **PTV**      | • Operate the train services using the infrastructure delivered by Melbourne Metro, in accordance with the approved Environmental Performance Requirements  
• Undertake maintenance of the infrastructure delivered by Melbourne Metro, other than any infrastructure which is to be operated and maintained by the PPP contractor for the term of the PPP contract |
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Responsibility</th>
</tr>
</thead>
</table>
| **Project Contractors** | • Comply with the EMF, legislative and approval requirements  
• Obtain any additional permits from regulatory authorities (other than the approvals that would be obtained by or jointly with MMRA)  
• Develop and implement a project specific EMS, certified to ISO 14001:2015 and compliant with the MMRA EMS  
• Prepare a CEMP, SEIPs and associated work method statements, and other plans required by the EPR or project contracts  
• Provide adequate resources to establish, implement, maintain and improve the CEMP, SEIPs and the EMS  
• Implement and maintain compliance with the Environmental Performance Requirements  
• Undertake environmental audits against compliance  
• Prior to commencement of work, ensure that all sub-contractors have complied with the relevant Environmental Performance Requirements and the CEMP  
• Review of sub-contractors’ performance against the Environmental Performance Requirements and CEMP, and take corrective action as necessary  
• PPP contractor: Prepare an OEMP and associated work method statements, and provide adequate resources to establish, implement, maintain and improve the OEMP  
• Early Works and PPP contractors: Appoint an Independent Environmental Auditor  
• PPP contractor: Undertake operation and maintenance of the infrastructure delivered by Melbourne Metro that is to be operated and maintained by the PPP contractor for the term of the PPP contract (tunnels and stations) |
| **Independent Reviewer (For PPP contract)** | • Review and approve the CEMP, the OEMP (and other documents as set out in Table 23–5) for the PPP contract  
• Prior to commencement of work, verify that the PPP contractor has complied with the relevant Environmental Performance Requirements  
• Review the PPP contractor’s performance against the Environmental Performance Requirements and take corrective action as necessary  
• Prepare reports on the PPP contractor’s compliance with the EMF and provide these to MMRA and the contractor  
• Prepare a quarterly report summarising the PPP contractor’s compliance with the EMF and provide to MMRA and the contractor |
| **Independent Environmental Auditor (For Early Works, PPP, RIA and RSA contracts)** | • Prior to commencement of work, verify that the contractor has complied with the relevant Environmental Performance Requirements  
• Conduct audits of the contractor’s works to assess compliance with the CEMP, OEMP (for PPP contract only), EMF and Environmental Performance Requirements  
• Review the contractor’s performance against the Environmental Performance Requirements  
• Prepare audit reports containing the results of audits |
23.5 Risk and Impact 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 of the EES, the objective of the environmental risk assessment is to identify key social, environmental and business risks associated with construction and operation of the project, and to develop management and mitigation measures to reduce these risks. Technical Appendix B Environmental Risk Assessment Report contains further detail on the risk assessment and the complete risk register developed for the EES.

The environmental risk assessment developed for the EES forms a key component of the EMF. This risk assessment would be ‘live’ and updated periodically to reflect the project status and any new information arising.

As part of their EMS, the contractors would be required to develop a detailed environmental risk assessment based on the detailed design of the project 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 contractors would be required to maintain a current risk register which would be ‘live’, 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.

23.6 Environmental Performance Requirements

Melbourne Metro will be delivered in accordance with approved Environmental Performance Requirements. Environmental Performance Requirements define the project-wide environmental outcomes that must be achieved during design, construction and operation of Melbourne Metro (regardless of the design solutions adopted).

This performance-based approach of the Environmental Performance Requirements aims to achieve outcomes that provide a net community benefit, while allowing for a delivery model with sufficient flexibility to encourage innovation by the private sector to determine how any recommended Environmental Performance Requirements would be achieved.

Many Environmental Performance Requirements require consultation to be undertaken with relevant stakeholders. The extent of consultation and outcomes would be documented to demonstrate compliance with the Environmental Performance Requirements. In instances where an Environmental Performance Requirement necessitates the involvement of a ‘responsible authority’, this is defined as the relevant responsible authority for the requirement specified. The responsible authority may be the Minister for Planning, local council, Melbourne Water, VicRoads, etc.
Proposed mitigation measures identified in this EES to avoid, reduce or offset environmental impacts form the basis of the recommended Environmental Performance Requirements for Melbourne Metro. These measures have been recommended by specialists through the EES assessment process.

The approach adopted to assess environmental risks and impacts and develop the Environmental Performance Requirements is described in Chapter 4 EES Assessment Framework and Approach. Specific requirements are discussed in the relevant sections of Chapters 8 to 22 of this EES.

The recommended Environmental Performance Requirements are presented in Table 23–2. They cover the following subject areas:

- Aboriginal cultural heritage
- Air quality
- Aquatic ecology and river health
- Arboriculture
- Business
- Contaminated land and spoil management
- Greenhouse gas emissions
- Groundwater
- Ground movement
- Historical cultural heritage
- Land use and planning
- Landscape and visual
- Noise and vibration
- Surface water
- Social and community
- Terrestrial flora and fauna
- Transport
- Urban design.

The EMF, including all recommended Environmental Performance Requirements, would be implemented through Project Contracts for the delivery of Melbourne Metro. Under the Incorporated Document, the EMF and Environmental Performance Requirements would also need to be approved by the Minister for Planning.

The EMF and the Environmental Performance Requirements will be updated by MMRA prior to submission to the Minister for Planning for approval to ensure all approval conditions of the planning controls applied under the Planning Scheme Amendment as specified by the Minister for Planning are captured.
| Table 23–2  | Recommended Environmental Performance Requirements (Note: Refer to EPRs IAC Version 4 provided separately – will be inserted in the EMF when finalised) |
23.7 Environmental Management Documentation

23.7.1 Overview

The documentation to implement the EMF is made up of a number of key pieces of documentation from MMRA (on behalf of the State Government) and the contractor, as well as relevant legislation and approvals that must be complied with (refer to Figure 23-3). At the State level, MMRA would be the owner and administrator of the Environmental Performance Requirements, MMRA Environmental Policy, MMRA EMS and statutory decisions and approvals.

The Environmental Vision stated in the MMRA Environmental Policy is:

"to be an industry leader in managing the environmental impacts of delivering major infrastructure projects".

The MMRA EMS (aligned to AS/NZS ISO 14001: 2015 Environmental management systems – requirements with guidance for use) would outline and track compliance with the environmental management responsibilities for all parties including the delivery contractors (the contractors). Additional MMRA strategies and plans include the Cultural Heritage Management Plan (currently under development), the Urban Design Strategy and the Community and Stakeholder Engagement Plan.

MMRA would also be responsible for administering the Project Contracts on behalf of the State Government in accordance with its EMS and procedures.

The contractors would each be required to develop and implement a project-specific EMS for construction of the project that is certified to AS/NZS ISO 14001: 2015 and consistent with the MMRA EMS. The purpose of the EMS would be to establish a system whereby environmental risks and impacts are managed and there is a process for identifying opportunities of continual improvement across the project.

MMRA together with the contractors would prepare plans to comply with the approval conditions of the planning controls applied under the Planning Scheme Amendment. Each contractor would also be required to prepare a Construction Environmental Management Plan (CEMP), Site Environment Implementation Plan(s) (SEIPs) and a Transport Management Plan (among others) for the construction phase. For the operations phase, the PPP contractor would be required to prepare an Operations Environmental Management Plan (OEMP).
There are three levels of plans required for Melbourne Metro as detailed in Table 23–3. A detailed description of the key documentation elements of the EMF is provided in Table 23–4.
Table 23–3 Levels of Environmental Management Documentation

<table>
<thead>
<tr>
<th>Description</th>
<th>Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strategic Framework and Development Plans</td>
</tr>
</tbody>
</table>
| Plans that set the strategic direction and governance of the project | Environmental Management Framework  
Urban Design Strategy  
Early Works Plan  
Development Plans |
| 2 | Management of broad impacts |
| Plans to guide specific programs or works in order to manage potential impacts on the community broadly | Construction Environmental Management Plan(s)  
Site Environment Implementation Plans  
Transport Management Plan(s)  
Operations Environmental Management Plan  
Community and Stakeholder Engagement Management Plan  
Community and Business Involvement Plan  
Construction Noise and Vibration Management Plan |
| 3 | Technical plans |
| All other plans required by Environmental Performance Requirements. These plans would reflect the chosen contractor’s methods of implementing the EMF and other regulatory requirements rather than the strategic direction and governing requirements for the Project, or matters of less broad community impact. |

Table 23–4 Key Environmental Management Documentation

<table>
<thead>
<tr>
<th>Documentation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>State of Victoria (MMRA)</td>
<td>This document provides the governance framework to manage environmental aspects as described in this EES for the design, construction and operational phases of the project.</td>
</tr>
<tr>
<td>Environmental Management Framework</td>
<td>Environmental Performance Requirements (Table 23–2) developed through the EES. Environmental Performance Requirements define the project-wide environmental outcomes that must be achieved during design, construction and operation of Melbourne Metro (regardless of the design solutions adopted)</td>
</tr>
</tbody>
</table>

Other Decisions and Approvals that MMRA is responsible for obtaining

- Minister’s Assessment of the EES
- Approval of a planning scheme amendment to implement specific planning controls for the project, in particular the Incorporated Document
- EPBC Act referral decision (not a controlled action, if undertaken in a particular manner)
- Cultural Heritage Management Plan
- Some Heritage approvals
<table>
<thead>
<tr>
<th>Documentation</th>
<th>Description</th>
</tr>
</thead>
</table>
| MMRA EMS       | EMS aligned to AS/NZS ISO 14001: 2015 Environmental management systems – requirements with guidance for use setting out policies, plans, procedures and activities, forming a systematic method of managing the environmental aspects of the project. The MMRA EMS Manual shall comprise:  
  - MMRA Environmental Policy  
  - Environmental management responsibilities for all parties, particularly the responsibilities of the yet to be engaged delivery contractor (the contractor)  
  - Processes and responsibilities for environmental risk assessment  
  - A schedule containing the Environmental Performance Requirements  
  - Compliance register  
  - Internal and external audit program. |
| Urban Design Strategy | The Melbourne Metro Urban Design Strategy provides urban design guidance relating to the design, procurement and implementation of the Melbourne Metro. It is intended to:  
  - State the broad urban design expectations for Melbourne Metro  
  - Ensure the landscape and visual impacts identified in the EES are addressed in a way that maximises the project’s positive contribution to Melbourne  
  - Set out design criteria that, along with further detailed content, will inform the technical specifications for project’s procurement phase. |
| Contractors | |
| EMS | The contractor’s EMS would be required to be certified to AS/NZS ISO 14001: 2015 Environmental management systems – requirements with guidance for use. The EMS would be aligned to the requirements of the MMRA EMS.  
  Each contractor’s EMS will be developed through the procurement phase for approval prior to commencement of works.  
  Each contractor’s EMS will be developed in consultation with Councils, Heritage Victoria, the Roads Corporation, Melbourne Water, Public Transport Victoria, and the Environment Protection Authority and other stakeholders as relevant, as required by EPR EM1.  
  The process for consultation and detailed timing will be set out in the program required by EPR EM1 to:  
  - Identify relevant agencies for consultation under the Incorporated Document, EPR, or other plans required by the EPR including the Community and Stakeholder Engagement Management Plan  
  - Identify statutory requirements and EPRs relevant to each agency  
  - Seek the views of each agency on relevant matters addressed by the plan. |
<p>| Development Plans | Each contractor must obtain approval of Development Plans for specified Project works, as required by conditions of the Incorporated Document. |
| Early Works Plans | The Managing Contractor must obtain approval of Early Works plans for Early Works, as required by conditions of the Incorporated Document. |</p>
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<tr>
<th>Documentation</th>
<th>Description</th>
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</table>
| **Construction Environmental Management Plan (CEMP)** | Each contractor must prepare a CEMP as relevant to any stage of the project, as required by conditions of the Incorporated Document and in accordance with any applicable EPR. The CEMP would reflect the requirements of the EMF and EPA Publication No. 480, *Environmental Guidelines for Major Construction Sites*. The CEMP would be developed to take into account:  
- 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 conditions  
- The findings of environmental investigations undertaken by or on behalf of MMRA  
- The findings of any environmental investigations undertaken by the contractor.  
The contractor may choose to develop one CEMP for its entire package of works or individual CEMPs for each precinct or component of the works. Similarly, the contractor 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 Environmental Performance Requirement requires the development of a specific management plan.  
A CEMP would be developed once the detailed design and refined construction methodology is prepared by each contractor.  
A CEMP would be prepared in consultation with agencies relevant to each plan including Council/s, Heritage Victoria, the Roads Corporation, Melbourne Water, Public Transport Development Authority and the Environment Protection Authority, as required under the Incorporated Document and any relevant EPR.  
The process for consultation and detailed timing will be set out in the program required by EPR EM1 to:  
- Identify relevant agencies for consultation under the Incorporated Document, EPR, or other plans required by the EPR including the Community and Stakeholder Engagement Management Plan;  
- Identify statutory requirements and EPRs relevant to each agency  
- Seek the views of each agency on relevant matters addressed by the plan. |
| **Operations Environmental Management Plan (OEMP) (for PPP contract)** | The PPP contractor or franchisee as relevant would develop an OEMP to reflect the requirements of the EMF and would consider:  
- The nature of operational activities and environmental features of each station and components of the tunnels being operated  
- Identification of the environmental issues to be managed and the measures to be taken to meet the Environmental Performance Requirements  
- Compliance with approval conditions and legislation  
- Interface with existing stations at Flinders Street and Melbourne Central  
- Emergency and incident management  
The contractor may choose to have separate or a consolidated OEMP for the different elements of the infrastructure, depending on the impacts to be managed. |
<table>
<thead>
<tr>
<th>Documentation</th>
<th>Description</th>
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<tbody>
<tr>
<td>Transport Management Plan (TMP)</td>
<td>The TMP(s) would provide the means by which the contractor would minimise disruption to traffic, car parking, pedestrian and bicycle movements during construction and address the requirements of relevant EPR. A TMP would be developed once the detailed design and refined construction methodology is prepared by each contractor. A TMP would be prepared in consultation with agencies relevant to each plan including Council(s), Heritage Victoria, the Roads Corporation, Melbourne Water, Public Transport Development Authority and the Environment Protection Authority, as required under the Incorporated Document and any relevant EPR. The process for consultation and detailed timing will be set out in the program required by EPR EM1 to:</td>
</tr>
<tr>
<td>Site Environment Implementation Plans (SEIPs)</td>
<td>Site specific plans identifying site-specific environmental control measures to be implemented. SEIPs would be developed once the detailed design and refined construction methodology is prepared by each contractor. SEIPs would be prepared in consultation with agencies relevant to each plan including Council(s), Heritage Victoria, the Roads Corporation, Melbourne Water, Public Transport Development Authority and the Environment Protection Authority, as required under the Incorporated Document and any relevant EPR. The process for consultation and detailed timing will be set out in the program required by EPR EM1 to:</td>
</tr>
<tr>
<td>Work Method Statements</td>
<td>Description of work activities, approvals required and risk assessment and control measures.</td>
</tr>
<tr>
<td>Records and Checklists</td>
<td>Monitoring and inspection records Checklists (e.g. environmental site inspection checklist) Records (e.g. training/competency records, waste transport and disposal certificates).</td>
</tr>
</tbody>
</table>

23.7.2 Approvals and Change Management

An outline of the review and approval requirements for the key environmental management documents of the EMF is provided in Table 23–5.
Revisions to MMRA and contractor documentation may be required as a result of changes in activities and work practices, changes to legislation, risks, or as a result of findings from internal or external audits, incidents or complaints. The contractors’ EMS, CEMP and OEMP (and other plans as required by the Environmental Performance Requirements) would be controlled documents and would be developed, approved, implemented and revised in accordance with Table 23–5.

### Table 23–5 Environmental documentation approval requirements

<table>
<thead>
<tr>
<th>Document and Version</th>
<th>Description</th>
<th>Minister for Planning</th>
<th>PPP</th>
<th>Other contracts</th>
</tr>
</thead>
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<td>CEMP</td>
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<td>Site Environment Implementation Plans (SEIPs)</td>
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<td>Construction Noise and Vibration Management Plan (CNVMP)</td>
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<td>Minor revision of CEMP, TMP, OEMP, SEIP, BDP, CSEMP, CNVMP</td>
<td>Change to clarify or improve environmental management practices or to add new obligations and associated controls. No increase in or introduction of new environmental risks</td>
<td>Review and evaluate</td>
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<td>Major revision of CEMP, TMP, OEMP, SEIP, BDP, CSEMP, CNVMP</td>
<td>Significant change to environmental management practices, work methods or scope that result in increased or new environmental risks or impacts</td>
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</table>

* MMRA would engage with key stakeholders, including councils, as required.

Plans required by the Environmental Performance Requirements, other than the plans specifically listed in Table 23–5, will be approved as follows:

- For Early Works, RIA and RSA these plans would be approved by the State of Victoria as party to the relevant contract (Melbourne Metro Rail Authority)
- Where prepared by the PPP contractor, these plans would be reviewed and commented on by both the State of Victoria (Melbourne Metro Rail Authority) and the Independent Reviewer under the PPP review procedures, and written confirmation provided that the plan complies with all statutory approvals, the Incorporated Document and the Environmental Performance Requirements.
23.8 Evaluating Environmental Performance Outcomes

The contract specifications would include compliance requirements for the contractor including monitoring, reporting to the MMRA and relevant government agencies, and internal and external environmental auditing. The process and timing for consultation with agencies in respect of implementation of the CEMP, SEIP and TMP in particular will be addressed in the program to be developed in accordance with Environmental Performance Requirement EM1.

A summary of these compliance requirements is provided in this section.

The MMRA EMS would describe the project'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.

23.8.1 Monitoring

A range of monitoring programs would be specified in each contractor’s CEMP and the PPP contractor's OEMP to enable conformance to and measurement of delivery of Environmental Performance Requirements. 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 and assets constructed.

The CEMP would be required to be reviewed regularly to verify that:

- The monitoring frequency is sufficient to identify any significant non-conformances 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 would be submitted to MMRA for approval prior to being implemented.

The contractors would hold responsibilities for the ongoing management of baseline and monitoring data to ensure the transparency and accountability of environmental management.
MMRA would be responsible for checking that baseline and other monitoring data meet the monitoring requirements of the MMRA EMS and ensuring that the stored electronic data sets are electronically readable.

Results of monitoring would be made available upon request to relevant interested parties to contribute to the improvement of environmental knowledge more widely.

### 23.8.2 Reporting

Performance against each contractor's CEMP would be reported to the MMRA and relevant government agencies as appropriate. The CEMP would describe the reporting and external notification requirements in detail, 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:

- The contractor would be required to prepare monthly environmental performance reports to MMRA (and the Independent Reviewer for the PPP contract). This report would include external and internal audit findings, monitoring results and incidents and non-compliances.
- Quarterly project activity report containing summary of key project activities.
- Notification to Aboriginal Victoria and DELWP if a potential Aboriginal site or artefact is identified.
- Notification to Heritage Victoria and DELWP if a heritage artefact is discovered.

### 23.8.3 Audits

Internal audits would be undertaken (by both MMRA and the appointed contractors) to monitor environmental performance, and to ensure continued conformance with ISO14001.

External audits would be conducted to monitor environmental performance for each work package, and to ensure continued conformance with ISO14001. These audits would be undertaken by an Independent Environmental Auditor appointed for each work package.

MMRA's implementation of the MMRA EMS would be audited annually using an independent auditor.

Audits would be scheduled for all Melbourne Metro work packages (such as early works, Tunnels and stations, Rail systems and Rail infrastructure) to ensure project activities are in accordance with the MMRA EMS, Environmental Performance Requirements and the contractor CEMP. The audit scope would be prepared prior to each audit. In summary, audits would evaluate:

- Conformance with EMS/EMP requirements.
• Compliance with Environmental Performance Requirements
• Responses to non-conformances, incidents and complaints received
• Effective implementation of monitoring programs.

The audit schedule would be determined on an annual basis for each work package and would take into account the following:
• The timing of the proposed works
• The nature of the proposed works including consideration of the level of associated risk
• Incident investigation outcomes
• Previous audit outcomes
• Management review outcomes.

Conformance 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
• Surveys
• Meeting minutes.

As a minimum, internal audits would be scheduled to coincide with the commencement of key activities and the use of key equipment, and on a quarterly basis (and more frequently where necessary) through the delivery of each work package. External audits would be scheduled on a quarterly basis (and more frequently where necessary) through the delivery of each work package.

The results of each audit would be presented in an audit report (the template to which will be agreed with MMRA at project commencement).

23.9 Contingency Measures

The CEMP and OEMP would be required to include appropriate contingency measures to address identified environmental, social and business risks during construction and operational phases. 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 would be developed to comply with relevant regulations, standards and industry best practice guidelines.

Examples of potential contingency measures include protocols for managing the discovery of previously unidentified historical archaeological sites and a plan to address the containment, treatment and disposal of any fuel and chemical spills. Contingency measures will also be a key part of the Cultural Heritage Management Plan for managing the discovery of previously unidentified Aboriginal Heritage sites.