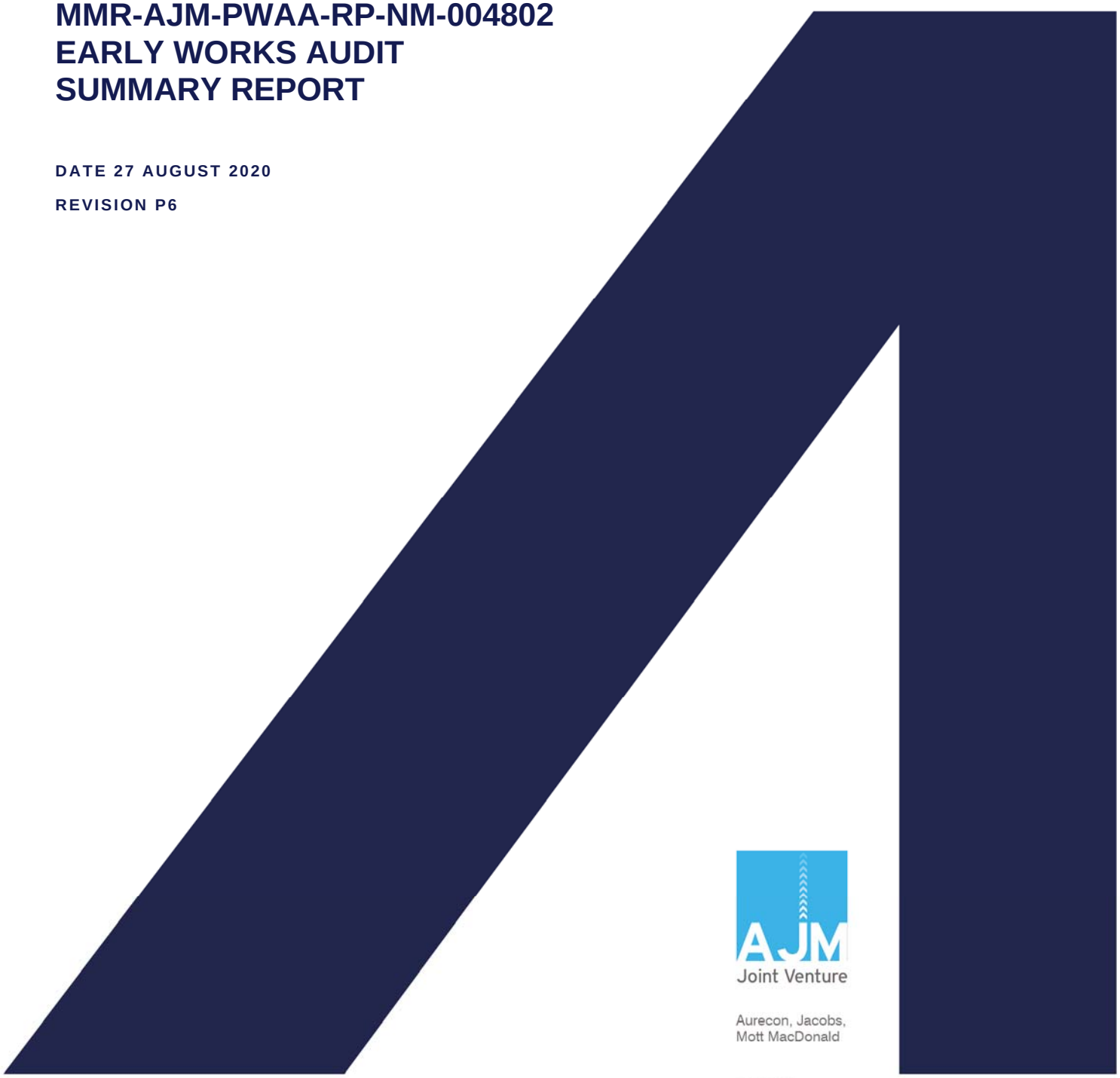
Metro Tunnel Project

PREPARED FOR RAIL PROJECTS VICTORIA

MMR-AJM-PWAA-RP-NM-004802
EARLY WORKS AUDIT
SUMMARY REPORT

DATE 27 AUGUST 2020

REVISION P6



AJM
Joint Venture

Aurecon, Jacobs,
Mott MacDonald

Contents

Glossary

TERM / ABBREVIATION	DESCRIPTION
AJM JV	Aurecon Jacobs Mott MacDonald Joint Venture
Beon Energy	Energy Solutions trading as Beon Energy Solutions
BSGC	Business Support Guidelines for Construction
CEMP	Construction Environmental Management Plan
CHMP	Cultural Heritage Management Plan
CSEMF	Community and Stakeholder Engagement Management Framework
CSEMP	Community and Stakeholder Engagement Management Plan
CYP	Cross Yarra Partnership
DoT	Department of Transport
EES	Environment Effects Statement
EMF	Environmental Management Framework
EMS	Environmental Management System
EPRs	Environmental Performance Requirements
Greencap	Greencap Pty Ltd
HCMTs	High Capacity Metro Trains
IEA	Independent Environmental Auditor
ISO 14001:2015	AS/NZS ISO 14001:2015 *Environmental management systems — Requirements with guidance for use*
JSEA	Job Safety and Environmental Analysis
MMRA	Melbourne Metro Rail Authority
MTIA	Major Transport Infrastructure Authority
MTP	Metro Tunnel Project
OEMP	Operational Environmental Management Plan
OOHW permit	Out of hours works permit
RIA	Rail Infrastructure Alliance
RIMG	Residential Impact Mitigation Guidelines
RPV	Rail Projects Victoria
RSA	Rail Systems Alliance
SEIPs	Site Environmental Implementation Plans
UDS	Urban Design Strategy
VAGO	Victorian Auditor-General's Office
VAGO Early Works Report	Victorian Auditor-General's Office (6 June 2019) *Melbourne Metro Tunnel Project – Phase 1: Early Works*
WMS	Work Method Statement

1 Executive Summary

The Melbourne Metro Rail Project known as the Metro Tunnel Project (MTP) is being delivered through four separate works packages. These are:

- Early Works.
- Tunnels and Stations.
- Rail infrastructure associated with the eastern and western portals and the western turnback.
- Rail systems for high capacity signalling, rail systems integration and commissioning.

The Victorian Auditor-General's Office undertook an audit of the Early Works Package and published its report *Melbourne Metro Tunnel Project – Phase 1: Early Works* on 6 June 2019 (VAGO Early Works Report).

Regarding its assessment of environmental strategies and risk mitigation, the VAGO Early Works Report recommended that Department of Transport (DoT) transmit to the Minister for Planning and, if there are no specific legal impediments or restrictions, publish summaries of key findings and recommended actions from past and future Independent Environmental Auditor reports produced for MTP on the project's official website.

This report has been developed to meet the above recommendation of the VAGO Early Works Report and provide the wider public with information of the project's environmental performance during the Early Works phase.

The auditing program for the Early Works Package identified that, in general, the Early Works Package was undertaken in accordance with the requirements of Environmental Management Framework (EMF), relevant Environmental Performance Requirements (EPRs) and Incorporated Document.

The auditing process is designed to lead to continual improvement during projects - this is key to AS/NZS ISO 14001:2015 *Environmental management systems — Requirements with guidance for use* (ISO 14001:2015) and best practice environmental management. As such, some observations, areas for improvement and non-conformances were identified. These were typically addressed quickly and closed out prior to the completion of the Early Works Package.

2 Introduction

2.1 Purpose

Rail Projects Victoria (RPV) engaged Aurecon Jacobs Mott MacDonald Joint Venture (AJM JV) to prepare a summary report of the independent environmental auditor (IEA) reports for the MTP Early Works Package. This report documents the project background and context and summarises findings from the independent environmental audits undertaken for the Early Works package.

The Victorian Auditor-General's Office (VAGO) undertook an audit of the Early Works Package and published the VAGO Early Works Report on 6 June 2019. Regarding its assessment of environmental strategies and risk mitigation, the report recommended that DoT transmit to the Minister for Planning and, if there are no specific legal impediments or restrictions, publish summaries of key findings and recommended actions from past and future IEA reports produced for the MTP on the project's official website.

The purpose of this audit summary report is to meet the above recommendation of the VAGO Early Works Report and provide the wider public with information of MTP's environmental performance during the Early Works Package.

2.2 Project Background

2.2.1 THE METRO TUNNEL PROJECT

The Victorian Government is building the MTP to connect the Sunbury line to the Cranbourne and Pakenham lines through the construction of new twin nine-kilometre rail tunnels and five new underground stations.

MTP is transforming Melbourne's rail network into an international-style metro system, boosting the capacity of the rail network to keep pace with Melbourne's growing population and rail patronage.

MTP will provide the foundation for expanding Melbourne's public transport network, helping to ensure Melbourne remains one of the world's most liveable cities now and into the future. MTP will also stimulate significant urban renewal, opening up opportunities for new housing, commercial development and jobs in and around the CBD, whilst improving train travel to and from the suburbs.

The infrastructure required for construction of MTP includes:

- Twin nine-kilometre rail tunnels from Kensington to South Yarra, connecting the Sunbury and Cranbourne/Pakenham railway lines to form a new Sunshine – Dandenong line (with the tunnels to be used by electric trains).
- Rail tunnel portals (entrances) at Kensington and South Yarra.
- New underground stations at Arden, Parkville, CBD North, CBD South and Domain with longer platforms to accommodate longer High Capacity Metro Trains (HCMTs). The stations at CBD North and CBD South would feature direct interchange with the existing Melbourne Central and Flinders Street Stations respectively.
- Train/tram interchange at Domain station.

- High capacity signalling to maximise the efficiency of the new fleet of HCMTs.

MTP will 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 tunnels.

MTP is being managed on behalf of the Victorian Government by RPV, formerly known as the Melbourne Metro Rail Authority (MMRA). RPV forms part of the Major Transport Infrastructure Authority (MTIA), which is responsible for facilitating the development and delivery of the biggest transport infrastructure program in Victorian history.

Figure 2-1 shows a broad schematic plan for the principal components of MTP.

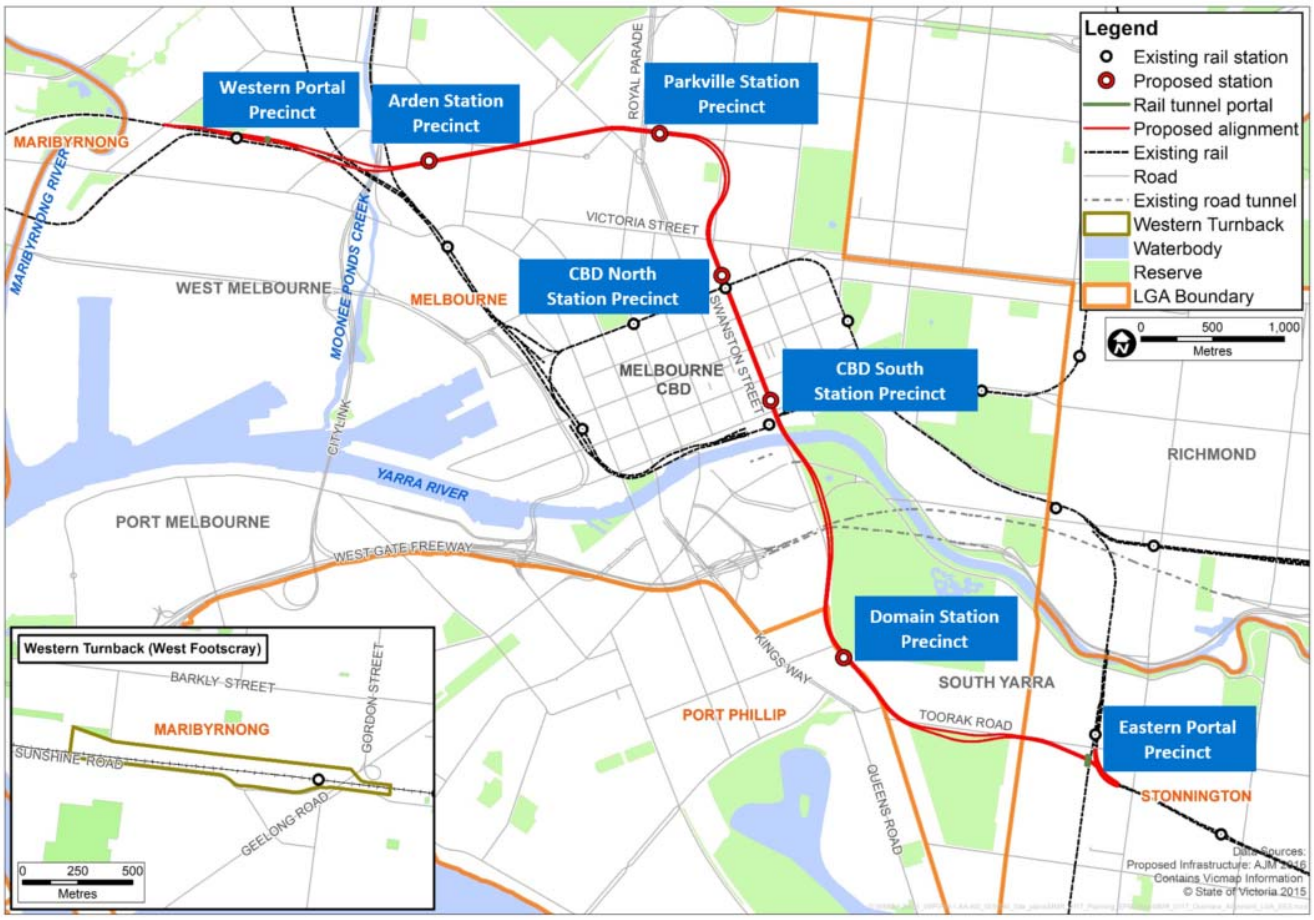


FIGURE 2-1 MTP SCHEMATIC PLAN

2.2.1.1 MTP Works Packages and Early Works

The MTP is being delivered through four separate works packages. These are:

- The Early Works Package including three sub-packages of works, each respectively being delivered by a Managing Contractor, Yarra Trams and Utility Service Providers.
- The Tunnels and Stations Works Package, being delivered by Cross Yarra Partnership (CYP).
- The Rail Infrastructure Works Package associated with the eastern and western portals and the western turnback, being delivered by the Rail Infrastructure Alliance (RIA) .
- The Rail Systems Works Package for high capacity signalling, rail systems integration and commissioning, being delivered by the Rail Systems Alliance (RSA).

This report covers the Early Works Package of MTP which includes three sub-packages as described in Table 2.1 below.

TABLE 2.1 MTP EARLY WORKS SUB-PACKAGES

EARLY WORKS SUB-PACKAGE	DELIVERY PARTNER	DESCRIPTION OF WORKS
Service Relocations and Construction Preparation	Early Works Managing Contractor (John Holland)	An initial program of works that includes protection and relocation of utility services such as gas, sewer and water mains, demolition, CBD shafts and road, bicycle and footpath changes.
Toorak Road West Tram Infrastructure Works	Yarra Trams	Works on tram infrastructure including: • new tram tracks and tram stops on Toorak Road West and St Kilda Road to enable the diversion of the Route 58 tram around the Domain station area during construction. • a new tram stop on Park Street, South Melbourne to enable passengers to move safely and efficiently by tram when the Domain tram interchange is temporarily removed for construction of Domain Station.
Construction Power Supply Infrastructure	Energy Solutions trading as Beon Energy Solutions	The supply of construction power works including: • construction of two temporary power substations – one in rail land in Arden Precinct and one at Edmund Herring Oval in Domain Precinct – to provide power to the tunnel boring machines that will build the new rail tunnels.

3 Environmental Management

3.1 Environmental Governance Framework

An Environment Effects Statement (EES) has been prepared for the MTP and, following the statutory EES process, an Incorporated Document was approved by the Minister for Planning. The Incorporated Document contains conditions which must be complied with for design and delivery of the MTP.

Following approval of the Incorporated Document, for each works package, a Delivery Partner(s) was appointed under the contractual framework applicable to the respective procurement model (Project Contract).

Project Contracts require each Delivery Partner to:

- Comply with the requirements of the Incorporated Document, including obtaining approval of, and implementing, Early Works Plans or Development Plans as relevant, and complying with the Urban Design Strategy (UDS).
- Comply with the EMF. The EMF has been approved by the Minister for Planning and is published on the MTP website. Among other things, the EMF includes the EPRs, the Residential Impact Mitigation Guidelines (RIMG) and the Business Support Guidelines for Construction (BSGC).
- Comply with the EPRs, which includes a requirement to prepare plans to document the approach to compliance (noting that each Delivery Partner has their own plans).
- Comply with the RPV Environmental Management System (EMS).
- Develop, implement and maintain a project specific EMS, Construction Environmental Management Plan (CEMP) and Site Environmental Implementation Plans (SEIPs) for the design and construction phases, where applicable.
- Develop a Community and Stakeholder Engagement Management Plan (CSEMP) consistent with the RPV CSEMP.

The governance framework and relevant roles and responsibilities for MTP are set out in the EMF and are included in Section 3 of this Summary Report.

The governance framework for MTP is presented in Figure 3-1.

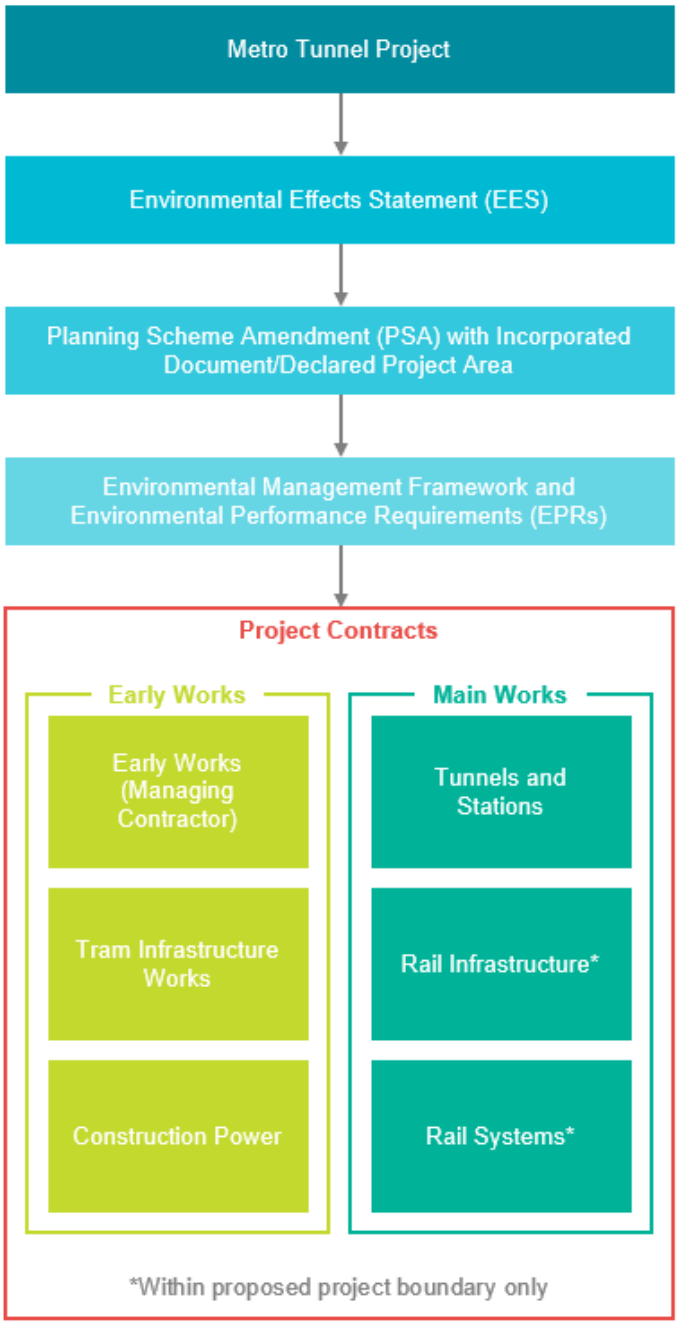


FIGURE 3-1 GOVERNANCE FRAMEWORK

3.1.1 ENVIRONMENTAL MANAGEMENT FRAMEWORK

The Incorporated Document describes the requirements of the EMF. The main elements of the EMF for the design and construction phase are:

- Applicable legislative requirements and approvals.
- EPRs, which address matters set out in the Incorporated Document and identified through the EES.
- The RIMG and the BSGC.

- A CEMP, together with subordinate document including SEIPs, EMS and other plans identified in the Incorporated Document and EMF.

The EMF documentation is summarised in Figure 3-2.

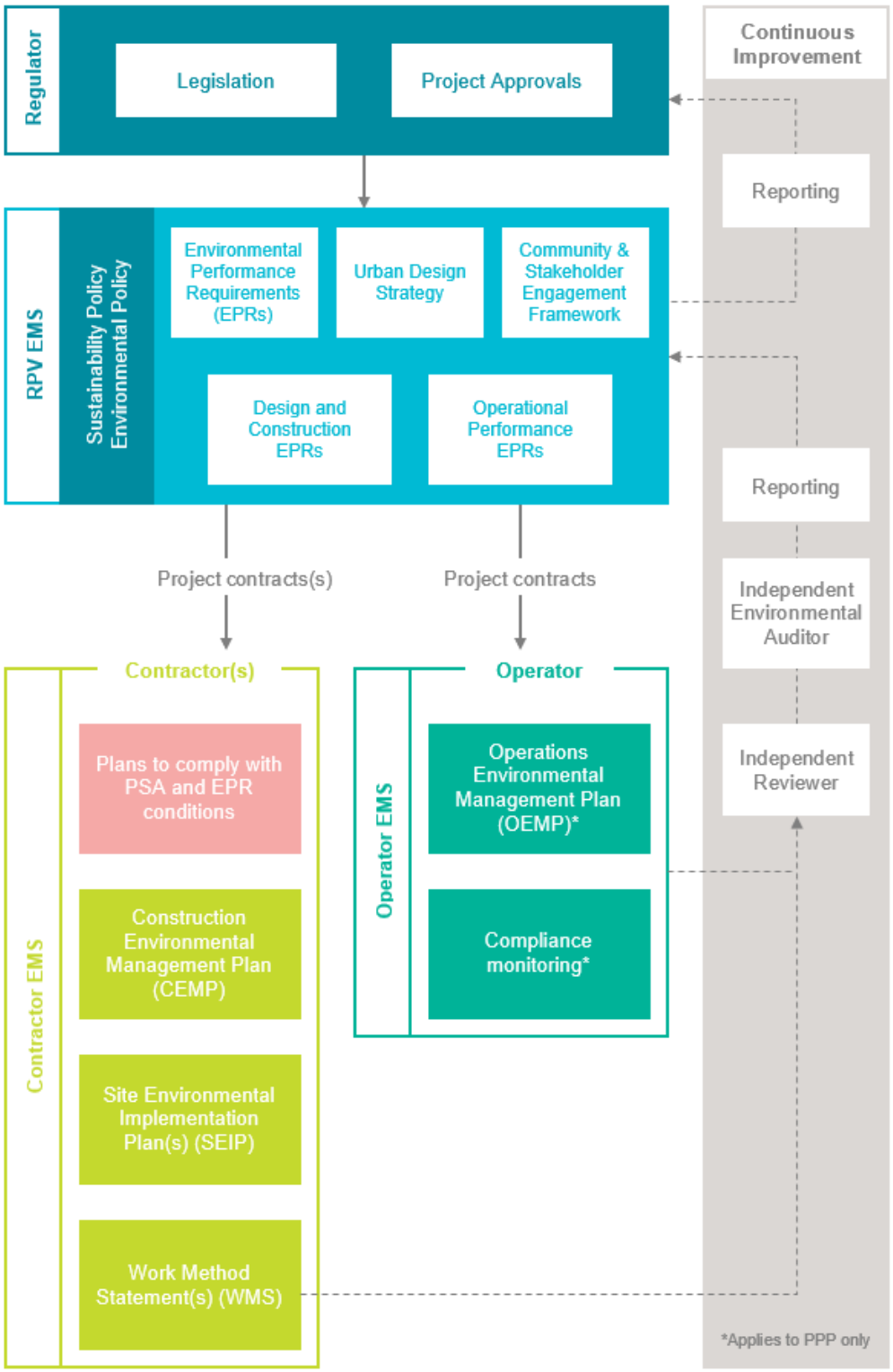


FIGURE 3-2 ENVIRONMENTAL MANAGEMENT FRAMEWORK

The EMF requires that the Delivery Partners develop and implement an EMS certified to ISO 14001:2015 and consistent with relevant legislation, policy and guidelines and RPV's Environmental Policy.

The EMF provides the governance framework to manage environmental aspects as identified through the EES process, including the Minister for Planning's Assessment, for the design, construction and operational phases of the MTP.

3.1.2 ENVIRONMENTAL PERFORMANCE REQUIREMENTS

EPRs have been developed through the EES and associated consultation processes, and to reflect the Minister for Planning's assessment of the EES and the requirements of the Incorporated Document.

MTP is being delivered in accordance with approved EPRs that define the project-wide environmental outcomes that must be achieved during design, construction and operation of MTP (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 presented a risk-based assessment of environmental effects of the MTP, in accordance with the EES Scoping Requirements. Potential mitigation measures were 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 did 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 are 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. This method is used so that the management and mitigation measures implemented are proportional to the effect they are designed to address and achieve the outcome prescribed by the EPR.

The Incorporated Document requires that the MTP is constructed and operated in accordance with the EPRs approved by the Minister for Planning. Each Delivery Partner is to 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.

3.1.3 ASSOCIATED MANAGEMENT PLANS

RPV together with the Delivery Partners (as relevant) prepared plans to comply with the approval requirements in the Incorporated Document. RPV and the Delivery Partners developed and implemented these management plans and programs in accordance with the processes detailed in the EMF.

3.2 Roles and Responsibilities

3.2.1 RAIL PROJECTS VICTORIA (FORMERLY MMRA)

RPV, on behalf of the Victorian Government, is responsible for delivering MTP in line with the requirements and objectives of DoT and the Victorian Government. RPV forms part of the MTIA, which is responsible for facilitating the development and delivery of the biggest transport infrastructure program in Victorian history.

The key roles and responsibilities of RPV for the MTP are set out in the EMF and include:

- Obtain applicable principal statutory approvals including the Planning Scheme Amendment (PSA), Cultural Heritage Management Plan (CHMP) and some heritage permits, where it is more appropriate for RPV to seek these consents.
- Establish the EMF, including the RIMG and the BSGC for approval by the Minister for Planning as required by the Incorporated Document.
- Establish the UDS and the Community and Stakeholder Engagement Management Framework (CSEMF) for approval by the Minister for Planning, as required by the Incorporated Document and EPRs.

- Develop and implement the RPV EMS, in accordance with ISO 14001:2015.
- Monitor compliance with the EPRs across all Project Contracts and comply with the EPRs applicable to RPV.
- Together with each Delivery Partner for each of the Project Contracts, develop and submit the required plans to comply with the requirements of the Incorporated Document and the EMF.
- Review and approve contract documentation for each Project Contract in accordance with the EMF, including the CEMPs, SEIPs, Transport Management Plans, Business Disruption Plans and Construction Noise and Vibration Management Plans as required by the Incorporated Document.
- Review the CSEMP for each Project Contract.
- Prior to commencement of work, verify that the Delivery Partner has complied with the relevant EPRs.
- Review the contractors' performance against the approved EPRs and take corrective action as necessary.

3.2.2 DELIVERY PARTNERS

Construction of MTP is being delivered by RPV on behalf of the Victorian Government in partnerships with contracted Delivery Partners. The key roles and responsibilities of each Delivery Partner for the MTP are set out in the EMF and the contractual obligations and include:

- Comply with the EMF (including the EPRs, RIMG, BSGC and CSEMF), legislative and approval requirements.
- Obtain any additional permits from regulatory authorities (other than the approvals that would be obtained by or jointly with RPV).
- Develop and implement a project specific EMS or apply their existing EMS to the specific activities for the MTP, that is certified to ISO 14001:2015 and compliant with the RPV EMS.
- Prepare a CEMP, SEIPs and associated work method statements, and other plans required by the Incorporated Document, EPRs or Project Contracts.
- Develop a CSEMP consistent with RPV's CSEMF approved by the Minister for Planning in accordance with EPR SC3.
- Provide adequate resources to establish, implement, maintain and improve the CEMP, SEIPs and the EMS.
- Implement and maintain compliance with the EPRs.
- Undertake environmental audits to confirm compliance with the EMF, EPRs and plans required by the Incorporated Document.
- Prior to commencement of work, ensure that all sub-contractors have complied with the relevant EPRs, CEMP and plans required to comply with the EPRs and Incorporated Document, where relevant.
- Review of sub-contractor's performance against the EPRs and CEMP and take corrective action as necessary.
- Appoint an IEA (Early Works and Tunnels and Stations packages only).

3.2.3 INDEPENDENT ENVIRONMENTAL AUDITOR

The EMF requires the early works contractors to appoint an IEA to undertake environmental audits of compliance with the approved CEMP and other compliance documents.

The IEA undertakes environmental audits of compliance with plans required to comply with the EPRs and Incorporated Document prior to implementation, as well as during project activities, to verify compliance with the EMF, EPRs, environmental management plans and approval requirements. This also includes investigations into trends in complaints, by topic or on a random basis.

The key roles and responsibilities of the IEA during the Early Works Package, as specified in the EMF, are:

- Prior to commencement of work, verify that the Delivery Partner has complied with the relevant EPRs, the EMF and the Incorporated Document.
- Conduct audits of the Delivery Partner's works to assess compliance with the CEMP, EMF, EPRs and plans required by the EPRs and Incorporated Document.
- Prepare audit reports containing the results of audits.
- Review complaints which may highlight trends or non-conformance with applicable EPRs.

4 Environmental Performance

4.1 Auditors

Table 4.1 presents the IEAs that have been engaged for each Early Works sub-packages.

TABLE 4.1 EARLY WORKS INDEPENDENT ENVIRONMENTAL AUDITORS

EARLY WORKS SUB-PACKAGE	DELIVERY PARTNER	IEA
Service Relocations and Construction Preparation	Early Works Managing Contractor (John Holland)	Helman Environmental Consulting
Toorak Road West Tram Infrastructure Works	Yarra Trams	Greencap Pty Ltd
Construction Power Supply Infrastructure Works	Energy Solutions trading as Beon Energy Solutions	TruSafety Solutions

4.2 Objectives

The objectives of the Early Works Auditing Programme were to:

- Assess the conformance of each Delivery Partner's CEMP with the requirements of ISO 14001:2015.
- Assess the conformance of each Delivery Partner's CEMP, relevant sub-plans and SEIPs with the requirements of EMF, relevant EPRs and Incorporated Document.
- Assess the conformance of the sub-package works with the respective CEMP, sub-plans, SEIPs, relevant EPRs and Incorporated Document.

4.3 Process

Audits of each Delivery Partner's CEMP, sub-plans and SEIPs involved a review of each document to assess compliance with ISO 14001:2015, the EMF, relevant EPRs and Incorporated Document.

During site inspections, compliance was assessed through observation of project activities, interviews and review of relevant environmental records.

4.4 Scope

The audit scope was prepared prior to each audit and was based on project status and the environmental risks that were considered to be significant at the time of audit. Audits typically evaluated:

- Conformance with EMS requirements.
- Compliance with EPRs.
- Compliance with the Incorporated Document.

- Responses to non-conformances, incidents and complaints received.
- Effective implementation of monitoring programs.

4.5 Requirements

Audits of each Delivery Partner's CEMP, sub-plans and SEIPs were required prior to works commencing to confirm compliance with ISO 14001:2015, the EMF, relevant EPRs and Incorporated Document.

Site audits were scheduled on a quarterly basis through the delivery of the Early Works Package and considered:

- The timing of works
- The nature of the works including consideration of the level of associated risk
- Incident investigation outcomes
- Complaints received, particularly if related to EPRs and indicate instances of non-conformances
- Previous audit outcomes
- Management review outcomes.

Upon the completion of each audit, an audit report detailing all the findings was submitted to RPV.

4.6 Audit Findings Review

4.6.1 SERVICE RELOCATIONS AND CONSTRUCTION PREPARATION SUB-PACKAGE

John Holland as the Early Works Managing Contractor engaged Helman Environmental Consulting to undertake the IEA role for this sub-package of the Early Works Package.

4.6.1.1 Audit Findings Classification

The auditing process is designed to lead to continual improvement during projects - this is key to ISO14001 and best practice environmental management. As such, some observations, areas for improvement and non-conformances are expected.

Table 4.2 describes how the Helman Environmental Consulting audit findings are classified.

TABLE 4.2 HELMAN ENVIRONMENTAL CONSULTING AUDIT FINDINGS CLASSIFICATION

CLASSIFICATION	DESCRIPTION
Conformance	There is sufficient evidence to confirm that actions have been undertaken, prepared and/or implemented in full conformance with the requirements of the auditable element.
Non-conformance	An incident that has non-fulfilled a requirement that has been specified in EPRs, SEIP, CEMP, legislation and permit conditions. A situation, which would, on the basis of available objective evidence raise significant doubt as to the effectiveness of environmental management. *Note 1: A non-conformance may be an individual non-conformance or a number of minor but related audit findings, which when considered in total are judged to constitute a non-conformance.* *Note 2: A non-conformance will require proposed or implemented actions.*

CLASSIFICATION	DESCRIPTION
Area for Improvement	A deficiency in the implementation of the CEMP or subordinate documentation judged to be a risk to the environment, or to environmental management, without constituting an overall failure in the area concerned.
Observation	An audit finding which may relate to an incidental or isolated system discrepancy, which does not compromise the effectiveness of environmental management, or constitute an actual or potential environmental risk.
Undetermined	There is insufficient evidence to make a judgement on compliance.
Not applicable	The auditable element falls outside the scope of the audit, e.g. work relevant to the element being audited has not yet commenced.

4.6.1.2 Audit Programme Summary

Helman Environmental Consulting undertook the following:

- Two audits of the CEMP and relevant sub-plans against ISO 14001:2015 and MTP requirements.
- 15 audits of SEIPs against the MTP requirements.
- Eight audits of the implementation of the CEMP, sub-plans, SEIPs, relevant EPRs, and subordinate documentation.

4.6.1.3 Findings

4.6.1.3.1 Audits of the CEMP and relevant sub-plans against ISO 14001:2015 and MTP requirements

Two audits of the CEMP and relevant sub-plans against the requirements of ISO 14001:2015 and MTP requirements were undertaken by Helman Environmental Consulting as part of the Service Relocations and Construction Preparation sub-package. Within these audits the implementation of the CEMP and relevant sub-plans was not audited.

During the audits four observations and/or areas for improvement were documented that relate to the referencing of processes between the various documents and the development of registers. These findings show that at the time of preparing the report, some of the plans were not yet completely developed. These types of audit findings are typical at the commencement of any construction project and are considered minor in nature and do not represent a risk to the environment or to environmental management.

The audits concluded that the CEMP and subordinate documentation meet the requirements of ISO 14001:2015 and the project requirements.

4.6.1.3.2 Audits of SEIPs against MTP requirements

Each SEIP was audited to check compliance with MTP requirements. The SEIPs for the following works locations were audited:

- Parkville Precinct, CBD North Precinct, Eastern Portal Precinct, CBD South Precinct, Western Portal Precinct, Arden Precinct and Domain Precinct.
- Network Enhancement Programs at Queensberry Street, Domain Road and Anderson Street, Nepean Highway, Kings Way, Parkville Secondary, Domain Secondary, Kings Way and Queens Road, and Latrobe Street, for the CCTV works and for the arterial road travel time works.

The audits concluded that all the SEIPs meet MTP requirements. It is noted that the implementation of the SEIPs was not audited as part of this activity but were in the implementation audits noted below.

4.6.1.3.3 Audits of the Implementation of the CEMP and relevant sub-plans, SEIPs, relevant EPRs, and subordinate documentation

Eight audits of the implementation of the CEMP and relevant sub-plans SEIPs, relevant EPRs, and subordinate documentation were undertaken by Helman Environmental Consulting as part of the Service Relocations and Construction Preparation sub-package. The audits included:

- Review of relevant records and documentation with relevant personnel of the Early Works Managing Contractor, including the Project Environment Manager – Governance, the Project Planning and Approvals Environment Advisor, and other environment personnel
- Inspection of works at:
  - » Domain Precinct on 9 November 2016.
  - » CBD North Precinct on 20 February 2017.
  - » Arden and Parkville Precincts on 25 July 2017.
  - » Domain Precinct on 26 July 2017.
  - » CBD North, CBD South, Domain and Eastern Portal Precincts on 25 October 2017.
  - » Arden, Western Portal and Parkville Precincts on 17 January 2018.
  - » CBD North and CBD South Precincts on 24 April 2018.
  - » CBD North Precinct, and the Victoria Street groundwater recharge works on 25 July 2018.
  - » CBD North and CBD South Precincts on 8 November 2018.

These audits identified 38 observations and/or areas for improvement and five non-conformances. Findings from the audits are detailed below.

RECORDS AND DOCUMENTATION

33 of the observations and/or areas for improvement involved record keeping, tracking, reporting or documentation. All of these observations and/or areas for improvement were considered minor in nature, did not represent a risk to the environment or to environmental management and were closed out prior to the completion of the Early Works Package.

SURFACE WATER QUALITY AND SEDIMENTATION

Audits identified the following observations and/or areas for improvement regarding surface water quality and sedimentation:

- During the audits on 25 and 26 July 2017 it was noted that the temporary stockpiles and nearby stormwater entry pits at Parkville Precinct were not adequately protected from sediment, and that bare earth at the Shrine site in Domain Precinct was releasing sediment onto the footpath. Sediment controls were observed to be adequate during following audits of the works at both Parkville and Domain Precincts. As such this has been closed out.
- During the audit on 17 January 2018 it was noted that a number of stormwater entry pits at Arden Precinct were not adequately protected with sediment controls. The Audit Actions Register noted that sediment controls had been rectified and photos of the cleaned pits were sighted 12 February 2018. As such this has been closed out.
- During the audit on 8 November 2018 it was noted that sediment controls at a stormwater pit at Franklin Street in CBD North Precinct were not adequately maintained. After this was noted during the site inspection the controls were rectified on the same day. As such this has been closed out.

AIR QUALITY AND DUST MANAGEMENT

Audits identified the following observations and/or areas for improvement regarding air quality and dust management:

- During the audit on 24 April 2018 dust was observed to be generated as equipment moved around in the area behind the A'Beckett Street shed in CBD North Precinct.

During the subsequent audit (25 July 2018) no dust was observed. The ground was damp, no equipment was moving, and the exposed area had been minimised by paving. As such this was closed out.

HAZARDOUS MATERIALS MANAGEMENT

Audits identified the following observations and/or areas for improvement regarding hazardous material management:

- During the audits on 25 and 26 July 2017 small quantities of fuel in jerry cans were observed unbunded at Arden Precinct.

During subsequent audits of works at Arden Precinct, and all other Precincts, all chemicals were observed to be appropriately stored. As such this was closed out.

NOISE AND VIBRATION

One non-conformance was raised against Noise and Vibration Sub Plan and EPR NV21 J3 during the audit on 24 April 2018. The non-conformance related to excavation works at CBD North being undertaken outside of normal working hours (7am to 6pm weekdays and 7am to 1pm Saturdays) without an out of hours works (OOHW) permit being issued.

To address this non-conformance, the Early Works Managing Contractor was issued an OOHW permit that was approved by the required parties for works at A'Beckett Street to September 2018 and Franklin Street to November 2018. As such this was closed out.

GROUNDWATER

Four non-conformances were raised against the Groundwater EPRs GW1, GW2, GW3 and GW5 during the audit on 8 November 2018. The non-conformances were identified during a review into the groundwater modelling, management and monitoring, which found these approaches were not adequate for the Early Works Managing Contractor's scope of works.

It is noted the groundwater was not intercepted during the Early Works Package (at the CBD North Precinct shafts). Groundwater was encountered after the commencement of the Tunnels and Stations Works Package. As such, these non-conformances fall under the purview of the Tunnels and Stations Works Package which has its own IEA and audit programme.

4.6.2 TOORAK ROAD WEST TRAM INFRASTRUCTURE SUB-PACKAGE

Yarra Trams appointed Greencap Pty Ltd (Greencap) to undertake the IEA role for the Toorak West Tram Infrastructure Works sub-package as part of the Early Works Package.

4.6.2.1 Audit Findings Classification

Audit findings were classified as either being compliant (Yes) or not (No). Additional notes and/or corrective actions were also provided where compliance was not met.

4.6.2.2 Audit Programme Summary

Greencap undertook the following audits:

- Two reviews of the CEMP and various environmental management plans to assess compliance with the project documents including the EPRs.
- An audit to assess the implementation of the environmental management procedures outlined in the various environmental management documentation.

4.6.2.3 Findings

The review of the environmental management documents confirmed compliance with the environmental requirements set out in the MTP documents, including the EPRs, with the exception of four items. These items related to the referencing between the various documents and adding some additional statements. These findings show that at the time of preparing the report, some of the plans were not yet completely developed. These types of audit findings are typical at the commencement of any construction project and are considered minor in nature and do not represent a risk to the environment or to environmental management.

The implementation audit identified compliance with the MTP documents and relevant EPRs. This includes compliance for:

- Documentation, training and auditing procedures.
- Stormwater, chemical, air quality, noise, traffic and lighting management.
- Flora and fauna protection measures.
- Sustainability practices.

4.6.3 CONSTRUCTION POWER SUPPLY INFRASTRUCTURE SUB-PACKAGE

Energy Solutions trading as Beon Energy Solutions (Beon Energy) engaged TruSafety Solutions as the IEA for the Construction Power Supply Infrastructure sub-package of the Early Works Package.

4.6.3.1 Audit Findings Classification

Table 4.3 describes how the TruSafety Solutions audit findings are classified. The auditing process is designed to lead to continuous improvement during projects and as such, some observations, areas for improvement and non-conformances are expected.

TABLE 4.3 TRUSAFETY SOLUTIONS AUDIT FINDINGS CLASSIFICATION

CLASSIFICATION	DESCRIPTION
Conformance	Fulfilment of a requirement e.g. demonstrated compliance with the specific CEMP, EPR or other.
Non-conformance	It is evident that there is a non-fulfilment of a requirement, eg. a deficiency or failure to meet the CEMP/EPR requirements, there was a failure to follow documented procedures and/or there was evidence of instances of apparent legal non-compliance.
Area for improvement	This could be as a result of an observation which can assist to improve the CEMP, documents and processes and could strengthen compliance.
Observation	General comment or statement of fact that is worthy of noting for “in progress”, or to consider and address (if required).
Undetermined	There is insufficient evidence to make a judgement on compliance.
Not applicable	The auditable element falls outside the scope of the audit, e.g. work relevant to the element being audited has not yet commenced.

4.6.3.2 Audit Programme Summary

TruSafety Solutions undertook the following audits:

- An audit to assess whether the CEMP complies with ISO 14001:2015 and EPRs.
- An audit to assess whether adequate processes are in place for the deliveries of oversized plant or structures outside of normal working hours as per EPR NV21 J3 (i).
- An audit to assess whether the CEMP, SEIPs and selected EPRs have been implemented.
- Close-out audits to assess whether the CEMP, SEIPs and selected EPRs have been adequately implemented, ready for completion and handover.

4.6.3.3 Findings

The audits identified the following:

- The CEMP is compliant with ISO 14001:2015 and EPRs.
- Approval for unavoidable works for deliveries outside of normal working hours was granted as per EPR NV21 J3 (i) as Beon Energy had:
  - » the required documents, arrangements and processes in place to comply with the EPR for unavoidable work outside of normal working hours and to minimise noise and environmental impacts.
  - » adequate processes in place to obtain permits and approvals and to ensure that every endeavour is made to use the identified delivery routes.
  - » adequate processes in place to ensure that notification is conducted as per the RPV requirements (and EPR NV21 J3 (ii)).
- There is general compliance with the EPRs. This includes for:
  - » Compliance with best practice sedimentation and pollution control measures and air quality control.
  - » Establishment of tree protection zones at Domain Precinct.
  - » Processes for the identification and removal of Category C Soil containing asbestos at Arden Precinct.
- Minor observations and opportunities for improvement were noted and actioned by Beon Energy. These include:
  - » Taking steps to check for hazardous substances and dangerous goods stored or brought onto site and the ensuring relevant current safety data sheet is obtained.
  - » Considering additional prompters for the main civil contractor to check for specific environmental risks and controls for the site and works being undertaken, in the daily pre-start or Job Safety and Environmental Analysis (JSEA) process.
  - » Checking that the complaints, incidents non-conformances or actions are updated to their current status and/or closed out accordingly on the relevant register or online program.

4.7 Conclusions

4.7.1 CLOSE OUT OF EARLY WORKS

The auditing programme identified that, in general, the Early Works Package was undertaken in accordance with the requirements of EMF, relevant EPRs and Incorporated Document.

The auditing process is designed to lead to continual improvement during projects - this is key to ISO14001 and best practice environmental management. As such, some observations, areas for improvement and non-conformances were identified. These were typically addressed quickly and closed out prior to the completion of the Early Works Package.

4.7.2 FUTURE SUMMARY REPORTS

This summary report relates to the Early Works Package of the MTP only. Further summaries of key findings and recommended actions from future IEA reports produced for the remaining works packages of the MTP will be prepared and published on the project's official website.

222 EXHIBITION STREET, MELBOURNE VIC 3000
PO BOX 23061 DOCKLANDS VIC 8012 AUSTRALIA