



**RAIL INFRASTRUCTURE ALLIANCE
EARLY WORKS PLAN
(EASTERN & WESTERN PORTALS)**

3 DECEMBER 2018

FOR SUBMISSION



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DEFINITIONS

TERM	DEFINITION
Construction Environment Management Plan (CEMP)	Overarching document, to be prepared by the RIA, which details the management of environmental aspects and impacts associated with the delivery of the works.
Early Works	Works identified as Early Works in the MTP's EES (section 6.5.10 and applicable technical appendices). Works in this phase can only commence following approval of an applicable Early Works Plan.
Environment Effects Statement (EES)	Assessment of the potential environmental, social and business impacts associated with the proposed construction and operation of Metro Tunnel under the <i>Environment Effect Act 1978</i> .
Environmental Management Framework (EMF)	As required under the Incorporated Document and which outlines clear accountabilities for the delivery and monitoring of the Environmental Performance Requirements to manage the environmental effects of the Metro Tunnel Project. The Metro Tunnel EMF was approved by the Minister for Planning and is publicly available on the Rail Projects Victoria website.
Environmental Performance Requirements (EPRs)	Environmental performance requirements as detailed within the approved EMF.
Incorporated Document	<i>Melbourne Metro Rail Project Incorporated Document</i> as inserted into the Maribyrnong, Melbourne, Port Phillip and Stonnington Planning Schemes via planning scheme amendment GC45 and subsequent amendments.
Independent Environment Auditor (IEA)	The Independent Environmental Auditor appointed by RPV for the MTP.
Key Stakeholders	The term stakeholder refers to any person or organisation with an interest in the project. To determine key stakeholders, the following factors, need to be considered: <ul style="list-style-type: none"> • Whether a stakeholder has a regulatory or approval role in relation to the MTP. • Whether the stakeholder represents an impacted facility or activity that is of importance to the wider community. • Whether a stakeholder possesses unique knowledge or skills that would contribute to a significantly better solution. • Whether a stakeholder can effectively represent the views or interests of many of those impacted by a given activity.
Main Works	All project works other than early works, enabling works and preparatory works, as defined in the EES and the Incorporated Document.
Melbourne Metro Rail Authority (MMRA)	The former name of Rail Projects Victoria. MMRA became Rail Projects Victoria in May 2018.
Metro Tunnel	The Metro Tunnel project, MTP, or Melbourne Metro Rail Project, as identified in the Incorporated Document
Planning Scheme Amendment (PSA)	An amendment to the Victorian Planning Schemes, which govern the use and development of all land within Victoria.
Project Land/MTP Land	Land as identified within Appendix 1 of the Incorporated Document.
Rail Projects Victoria (RPV)	Government Authority responsible for the planning and delivery of the Metro Tunnel Project.
Sensitive receptor or sensitive receiver	Sensitive receptors as per relevant statutory guidelines, including homes, schools, universities and hospitals, or places where a person's regular daily life might be affected by amenity impacts as a consequence of the project. Sensitive receptors do not include public open space or places of work.

TERM	DEFINITION
Site Environmental Implementation Plans (SEIPs)	Subordinate to the CEMP are the Site Environmental Implementation Plans (SEIPs) which describe how environmental aspects and impacts will be managed at each distinct area (precinct) within the Metro Tunnel project.
Traffic and Transport Working Group (TTWG)	Working group comprised of RPV, Public Transport Victoria, DEDJTR, Road Management authorities, relevant Councils, public transport providers and other agencies as required.
Urban Design Strategy (UDS)	Refer to the Incorporated Document – the UDS was approved by the Minister for Planning on 16 February 2017.
Victorian Heritage Inventory (VHI)	Inventory of historical archaeological sites which are identified and protected under the <i>Heritage Act 2017</i> .
Victorian Heritage Register (VHR)	Register of significant heritage places or/or objects which are identified and protected under the <i>Heritage Act 2017</i> .

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1. INTRODUCTION

1.1 PURPOSE

The Rail Infrastructure Alliance (RIA), on behalf of Rail Projects Victoria (RPV), is delivering the Eastern Portal (South Yarra) and the Western Portal (Kensington) works as part of the Metro Tunnel Project (MTP). RIA proposes to complete a series of early works (the RIA Early Works) at both portal locations in advance of the main portal development works (the Main Works).

This RIA Early Works Plan has been prepared for approval by the Minister for Planning to enable early works to occur at both portals, as allowed under the *Melbourne Metro Rail Project Incorporated Document* (the Incorporated Document).

The RIA Early Works and this RIA Early Works Plan are separate to the previously approved Cross Yarra Partnership (CYP) Early Works and the supporting CYP *Early Works Plan – 24 January 2018* affecting the Eastern Portal and Western Portal. They are also separate to the CYP Main Works to be delivered at the portals, which will be facilitated by the CYP *Eastern Portal Development Plan* and *Western Portal Development Plan*.

1.2 METRO TUNNEL PROJECT

The Metro Tunnel project is an \$11b investment delivering twin nine-kilometre rail tunnels from the west of the city to the south-east as part of a new Sunbury to Cranbourne and Pakenham lines. The MTP will create additional capacity in the inner core of the metropolitan rail network, allowing more trains to run more often across the broader network. It is supported by:

- five new underground stations at North Melbourne, Parkville, State Library (at the northern end of Swanston Street), Town Hall (at the southern end of Swanston Street) and Anzac (on St Kilda Road)
- portal structures to connect the new tunnels to the existing Sunbury and Cranbourne and Pakenham lines, at Kensington (Western Portal) and South Yarra (Eastern Portal), respectively
- High capacity signalling to maximise the efficiency of the new fleet of High Capacity Metro Trains
- a train/tram interchange between Anzac Station and the Domain Interchange.

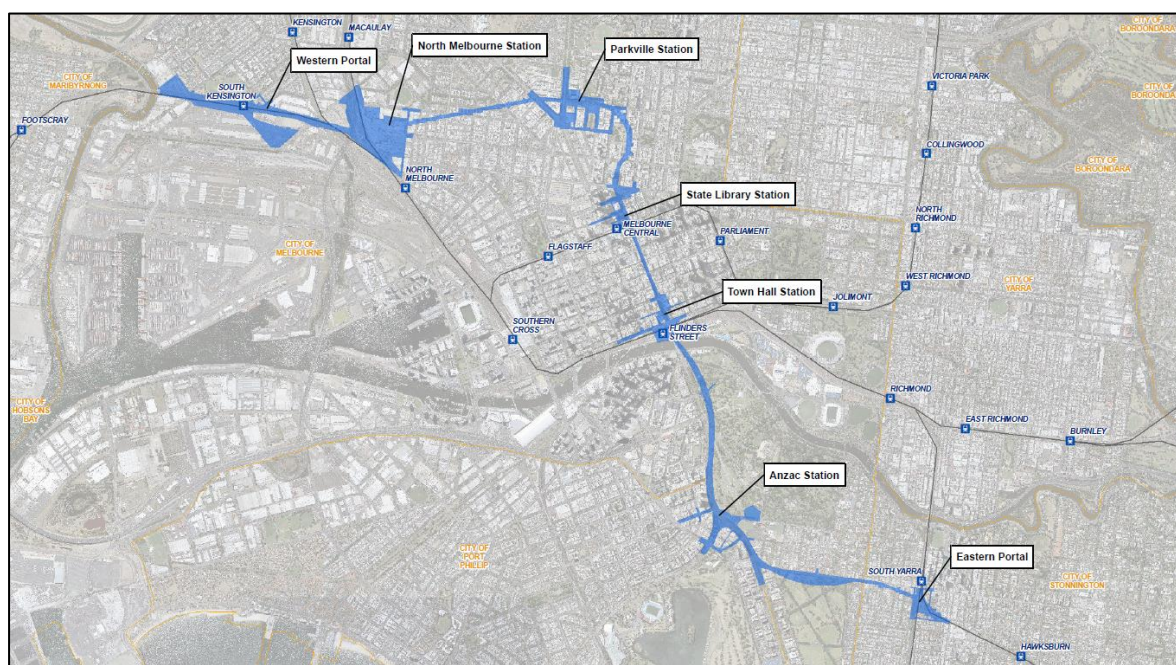


Figure 1 Metro Tunnel Project land

1.2.1 METRO TUNNEL PROJECT PRECINCTS

The Metro Tunnel EES defined nine precincts as part of the Metro Tunnel Project based on the location, the nature of project components and construction works, the potential impacts on local areas and the characteristics of surrounding communities, as shown in

Figure 1 and described as follows:

- Western Portal (Kensington), EES Precinct 2 – is located adjacent to the existing South Kensington station and associated pedestrian underpass. The precinct contains housing, public open space and an industrial estate to the north, with railway lines and a freight terminal located to the south. JJ Holland Park is located to the north of the portal and is an area of well-used public open space. Several residential properties are also located to the north of the proposed portal in Childers Street.
- Eastern Portal (South Yarra), EES Precinct 8 – is highly urbanised and comprises extensive mixed use development and a diverse range of housing types, from low density detached housing to large residential apartment blocks. The existing railway line is bordered by this residential development and the South Yarra Siding Reserve. The area is also adjacent to one of Melbourne’s busiest retail and entertainment precincts, centred on Toorak Road and Chapel Street.

1.3 DELIVERY OF THE METRO TUNNEL PROJECT

The MTP is being delivered under separate works packages as follows:

- Early Works – These works are separate to the RIA Early Works. This initial program of works is required to prepare key construction sites to support the Tunnels and Stations works. These are ongoing and include:
 - Protection and relocation of utility services such as gas, sewer and water mains, demolition and road, bicycle and footpath changes. These works are being delivered by John Holland.
 - Delivery of two temporary power substations – one in rail land in Arden and one at Edmund Herring Oval in Domain – to provide power to the tunnel boring machines required to build the tunnels. These works have been completed by Beon Energy Solutions.
 - Delivery of tram diversion works to support the tunnels and stations works. These works have been completed by Yarra Trams.
- Tunnel and Stations – this package is to deliver the five new stations and the new tunnels, including tunnel boring machine retrieval shafts at the portals. This package is being delivered by the Cross Yarra Partnership and are facilitated by the CYP *Early Works Plan – 24 January 2018* and the various CYP Development Plans prepared for the two portals and the five new stations. These works are ongoing.
- Rail Infrastructure – this package is to deliver a series of rail corridor enhancements along the Sunbury and Cranbourne and Pakenham lines, including delivery of the Eastern Portal and Western Portal precincts and the early works described in this document. This package is being delivered by RIA and will be facilitated by the RIA Early Works Plan and any Development Plans to be prepared by RIA for the Eastern Portal, Western Portal and any other precincts that may require a Development Plan, including the Western Turnback Precinct. These works are yet to commence.
- Rail Systems – this package is to deliver the signaling system required to support the MTP and is being delivered by the Rail Systems Alliance, consisting of CPB, Bombardier and Metro Trains Melbourne. These works are ongoing.

2. APPROVALS FRAMEWORK

2.1 INCORPORATED DOCUMENT

The MTP was assessed through an Environment Effects Statement (EES) process, which was a requirement of the Minister for Planning's original 'public works' declaration, as published in 2015. This assessment considered the potential environmental, social, economic and planning impacts of the project, and the approach to managing these impacts, and was supported by a range of technical studies on the natural environment, geology and ground conditions, heritage impacts and traffic and transport.

Planning Scheme Amendment (PSA) GC45 was published in the Government Gazette in January 2017, which inserted the *Melbourne Metro Rail Project Incorporated Document* (the Incorporated Document) into the relevant planning schemes to facilitate the delivery of the MTP. PSA GC45 has subsequently been updated and amended through planning scheme amendments GC67 and GC82. This document refers to the GC82 version of the Incorporated Document (dated May 2018), approved and published in the Government Gazette in July 2018.

2.2 REQUIREMENTS OF INCORPORATED DOCUMENT

In relation to works at the portals, the Incorporated Document requires the following:

- Clause 4.7.1 - All surface works to be addressed in a Development Plan/s, which must be approved by the Minister for Planning;
- Clause 4.8.1 - Prior to the commencement of any building of works associated with the MTP, an Environmental Management Framework (EMF), including Environmental Performance Requirements (EPRs), must be approved by the Minister for Planning;
- Clause 4.9.1 - An Urban Design Strategy (UDS), prior the submission of a Development Plan, which must be approved by the Minister for Planning; and
- Clause 4.10.1 - Early Works identified in the EES for the MTP may be carried out before a Development Plan is approved, provided that an Early Works Plan is approved by the Minister for Planning.
- Clause 4.10.9 – Early Works Plans may be prepared and approved in stages or parts and may be amended from time to time with the approval of the Minister for Planning, in accordance with the Incorporated Document.
- Clause 4.13.1 - Preparatory works may commence before the above listed plans, and other matters listed in sub-clauses 4.7 to 4.10 of the Incorporated Document, are approved, which include, but are not limited to:
 - Works, including vegetation removal, that would not require a permit under the provisions of the Planning Schemes that, but for the Incorporated Document, would apply to the relevant land.
 - Investigations, surveys, testing and preparatory works to determine the suitability of land.
 - Creation of construction access points.
 - Establishment of environmental and traffic controls.
 - Fencing and temporary barriers to enable preparatory works.

2.2.1 EARLY WORKS DEFINITION

The EES anticipated that the exact nature of Early Works would be determined following detailed design and that they would comply with the recommended Environmental Performance Requirements developed for the Metro Tunnel Project. Section 6.5.10 of the EES defines Early Works as follows:

Early works would be undertaken prior to the main construction works and would include:

- Third party services – such as the relocation and protection of services removal and if possible relocation of trees, and relocation of monuments;
- Transport diversions – for public transport and active transport routes and facilities, and for other traffic such as emergency vehicles, delivery vehicles and cars;

- Site preparation – including access arrangements (such as road upgrades and temporary relocation of car parking), new assets (such as permanent high voltage supply for rail) and building demolitions
- Shaft preparation – excavation works and shaft construction at CBD stations.

The EES provides further detail of early works at the Eastern Portal as follows:

Service relocation and/or protection including:

- Electricity conduits
- Gas mains
- Telecommunications conduit
- Water main

The EES provides further detail of early works at the Western Portal as follows:

Service relocation and/or protection including:

- Electricity, including relocation of high voltage transmission towers
- Gas, including high pressure Dandenong-West Melbourne transmission main
- Sewer
- Telecommunications conduits
- Water mains
- Stormwater drain

The Incorporated Document draws upon the definition of Early Works in the EES to categorise the activities that are encompassed by the Early Works definition. Clause 4.10.2 of the Incorporated Document outlines Early Works, as per the EES, as follows:

Early works for the Project identified in the Environment Effect Statement include:

- a) Utility service relocation and protection of utility assets;
- b) Site preparation works, including demolition works, removal or relocation of trees and monuments, minor road / transport network changes; and
- c) Works for construction of shafts at CBD North and CBD South station precincts.

2.3 APPROVED PLANS

2.3.1 METRO TUNNEL PROJECT PLANS

RPV has prepared the following plans, which have been approved by the Minister for Planning where required, that affect the portals:

- *Metro Tunnel Environmental Management Framework* (December 2017), as required under Clause 4.8.1 the Incorporated Document and approved by the Minister for Planning. This document is available on the RPV website.
- *Metro Tunnel Environment Management System*, as required under the EMF, certified to AS/NZS ISO 14001:2015 *Environmental management systems – Requirements*, 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 EPRs.
- *Metro Tunnel Business Support Guidelines for Construction*, as required under the EMF. This document is available on the RPV website.
- *Metro Tunnel Residential Impact Mitigation Guidelines for Construction*, as required under the EMF. This document is available on the RPV website.
- *Metro Tunnel Urban Design Strategy*, as required under Clause 4.9.1 the Incorporated Document and approved by the Minister for Planning. This document is available on the RPV website.

2.3.2 PORTAL EARLY WORKS AND DEVELOPMENT PLANS

The following plans have been prepared in relation to the portals:

- *Eastern Portal Development Plan* (approved), by CYP, which addresses the scope and extent of CYP tunnel entrance works only, including:
 - An ancillary building with emergency access and egress.
 - Reinstatement of Osborne Street (within CYP extent of works).
 - Landscaping within the CYP extent of works area surrounding the ancillary building.
- *Western Portal Development Plan* (approved), by CYP, which addresses the scope and extent of CYP tunnel entrance works only, including:
 - An ancillary building with emergency access and egress.
 - Reinstatement of part of Childers Street (within CYP extent of works).
- *Early Works Plan – 24 January 2018* (approved), by CYP, which addressed the early works required to support scope and extent of CYP tunnel entrance works only.
- *Managing Contractor Early Works Plan* (approved), by John Holland, which addressed the MTP Early Works as described in Section 2.2.

3. SITE DESCRIPTION

3.1 EASTERN PORTAL

The Eastern Portal RIA Early Works area, identified as Precinct 8 in the Metro Tunnel EES, is located in South Yarra. It includes the South Yarra Siding Reserve, part of the Sandringham, Cranbourne and Pakenham rail corridors and part of local roads including Toorak Road, Osborne Street, Williams Street, Chambers Street, Arthur Street and Bond Street. The works area is bound by Toorak Road to the north, Chapel Street to the east, Arthur Street to the south and Osborne Street to the west. South Yarra station is located immediately north of the precinct.



Figure 2 Eastern Portal RIA Early Works area (refer to Appendix A for details)

Urban context

The broader Eastern Portal precinct is highly urbanised and comprises extensive mixed use development and a diverse range of housing types, from low density detached housing to large residential apartment blocks. The existing railway line is bordered by this residential development and the South Yarra Siding Reserve. The area is also adjacent to one of Melbourne's busiest retail and entertainment precincts, centred on Toorak Road and Chapel Street.

The Eastern Portal precinct includes open space and residential development with offices, retail premises and shops located along Toorak Road and Chapel Street. In 2015, there were 31 businesses located within the precinct, almost all of which are in the retail trade sector, with an estimated 310 employees.

The results from the Melbourne Metro Rail Project Cultural Heritage Management Plan (CHMP No. 13967) complex testing program identified that despite historical construction and demolition activities, one previously unknown Aboriginal Place is present within the South Yarra Siding Reserve.

Daily traffic volumes on Toorak Road, the key access route to the precinct, are quite high with around 18,000 vehicles per day currently travelling along Toorak Road. There is no train station within the precinct, however South Yarra station – the eleventh busiest station in the metropolitan network and the sixth busiest transfer station – is located adjacent to the precinct's northern boundary. Existing rail services at South

Yarra station include Sandringham, Cranbourne, Pakenham and Frankston. The precinct is well served by trams, with several busy services running along Toorak Road and Chapel Street to the CBD. An existing tram line runs along Toorak Road (Route 58). No bus services traverse the precinct, with the majority of nearby routes being well to the south or west.

Toorak Road and Chapel Street are notable pedestrian environments connecting to the extensive commercial, retail and dining outlets on these streets. An off-street path (Lovers Walk) runs adjacent to the Frankston/Cranbourne/Pakenham Lines between South Yarra station and Chapel Street. This path and the William Street bridge would be removed for the duration of the construction works.

3.2 WESTERN PORTAL

The Western Portal RIA Early Works area, identified as Precinct 2 in the Metro Tunnel EES, is located in Kensington. It is bound by JJ Holland Park to the north, the railway line and South Kensington station to the south, the CYP early works site to the east and the Maribyrnong River to the west. The works area is traversed by Childers Street and also affects part of Hobsons Road and Kensington Road.



Figure 3 Western Portal RIA Early Works area (refer to Appendix C for details)

Urban context

The broader Western Portal precinct contains housing, public open space and an industrial estate to the north, with railway lines and a freight terminal located to the south. Most residential areas are located to the north, east and west of JJ Holland Park, with Childers Street, Ormond Street and Tennyson Street supporting residential uses, including the Kensington Banks residential area located north of Hobsons Road. There is a small pocket of dwellings located on Ormond Street and Childers Street adjacent to the rail corridor, located further east of the RIA Early Works area.

JJ Holland Park covers some 10.2ha and is a well-used public open space that provides opportunities for both active and passive recreation, including sporting fields, a BMX and skate park, picnic and barbeque facilities and playground. Community facilities are located within the park precinct, including the Bill Vanina Pavilion and a Council Depot (both with vehicle access via Childers Street), the Kensington Community and Recreation Centre, a childcare centre and a maternal and child health centre.

South of the rail line there are warehouses, storage facilities and other transport infrastructure. The Lloyd Street Business Estate is located at the eastern end of Childers Street and contains businesses mainly

pertaining to transport, warehouse and storage activities. The estate is gated, with access provided via Childers Street and Lloyd Street. There are three internal private roads that service the site: McLennan Drive; Bakehouse Road; and McClure Road.

One high voltage transmission tower is located within the Western Portal precinct, with an easement 37m wide (13m either side of the tower).

South Kensington station is located within the Western Portal precinct, further east of the RIA Early Works area, and accessed via Childers Street. It is an unstaffed station and is not serviced by formal station carparking. However, existing Council carparking located along Childers Street is mainly used by commuters accessing South Kensington station as well as visitors to JJ Holland Park. Bus route 402 traverses the western end of the precinct along Kensington Road. Daily traffic volumes on many of the key access routes are quite high. For example, around 9,500 vehicles per day use Kensington Road. There is good provision of pedestrian infrastructure on-road and off-road bicycle routes throughout the precinct.

4. SCOPE OF RIA EARLY WORKS

The Eastern Portal and Western Portal RIA Early Works scopes, as described in sections 4.1 and 4.2, respectively, include Preparatory Works activities. These Preparatory Works activities may occur prior to the approval of this RIA Early Works Plan, as allowed under Clause 4.13.1 of the Incorporated Document.

4.1 EASTERN PORTAL

The RIA works associated with the Eastern Portal precinct are described below. Accompanying site layout plans can be found in Appendix A.

4.1.1 PREPARATORY WORKS

RIA Preparatory Works at Eastern Portal includes:

- Site clearing and grading
- Trimming and lopping of vegetation, as required, to facilitate safe construction access
- Installation of construction site boundary hoardings and noise barriers (where required), nominally 2.4 metres high, to facilitate the above listed Preparatory Works.

4.1.2 UTILITY SERVICE RELOCATION AND PROTECTION

Utility relocation works will involve the relocation and protection of both road and rail corridor services to facilitate the Metro Tunnel Project works and to enable site access for construction vehicles. The works will include the following:

- Service relocation and protection works on Arthur Street, William Street, Chapel Street and Toorak Road
- Relocation of existing railway signalling assets from beneath the Arthur Street carpark to a temporary location
- Removal of abandoned services where necessary to facilitate site preparation works
- Installation of a combined service route (railway signalling and communications asset), including access pits and underline crossings
- Overhead wiring foundation and structures installation, in preparation for the proposed January 2019 Sandringham and Dandenong rail corridors occupation

4.1.3 SITE PREPARATION

General site preparation works include the following:

- Installation of construction site boundary hoardings and noise barriers (where required), nominally 2.4 metres high, to facilitate site establishment works
- Establishment of site lay-down areas, offices and facilities, including site clearing, top soil stripping and grading of the site
- Removal of asbestos, as required
- Installation of new piled abutments to support the new William Street bridge
- Installation of earth retaining piles to facilitate site access roads and ramps

Temporary structural works to support the proposed January 2019 Sandringham and Dandenong rail corridors occupation, including:

- Installation of temporary supports, where required along rail corridor boundary
- Installation of brick anchors at the existing Chapel Street retaining wall
- Installation of earth retaining piles to facilitate widening of the existing rail corridor.

Demolition

Demolition of the following properties:

- 25/25A Arthur Street, South Yarra
- 27 Arthur Street, South Yarra
- 5 William Street, South Yarra
- 7 William Street, South Yarra
- 1/8 William Street, South Yarra – partial demolition as required, subject to any other consents, approvals or resolutions that may be required. Any demolition required would occur within hoarded construction access areas.
- William Street bridge

Tree Removal

The Eastern Portal RIA Early Works scope will require the removal of the following trees:

- 80 trees from the South Yarra Siding Reserve and rail corridor, as identified in the EES, to prepare the site for construction
- 13 trees located within William Street, as included in the Incorporated Document Project Land, to facilitate safe movement of construction vehicles.
- 4 trees located in Chambers Street, outside of the Incorporated Document Project Land, to facilitate safe movement of construction vehicles. The removal of these trees is subject to approval from Stonnington City Council.

Refer Appendices A and B for further detail.

Access Arrangements

Access arrangements are required to facilitate construction vehicle access to the site, utility service relocation works and road network changes. These changes would be required for the duration of the RIA Early Works. Refer Appendix A for site layout plans.

Road network changes include:

- Construction of a temporary vehicle access route from Chambers Street to the 8 William Street property. This will enable the RIA to temporarily close off the current access route via Williams Street for construction of a retaining wall
- Installation of new traffic signals at the intersection of William Street and Toorak Road and potentially the intersection of Chapel Street and Arthur Street. This will facilitate a steady flow of construction vehicles to and from site and prevent congestion within the local roads immediately adjacent to the works (Note: The extent of the traffic works will be determined following traffic modelling assessments carried out by the RIA contractor)
- Temporary full road, partial road and single lane road closures (with access made available to residents) at the following locations:
 - Toorak Road – some removal of parking around the William Street intersection; short term closures, as required
 - William Street – closure from 5 William Street to 15 William street; removal of extended planter kerbs along entire street
 - Arthur Street – removal of parking along both sides of the street, between Chapel Street and William Street
 - Chambers Street (south of Bond Street) – closure of street (including removal of parking)
 - Chambers Street (north of Bond Street – removal of all parking on east side of street; removal of parking on west side of street from Bond Street to 9 Chambers Street (to be agreed with Council)
 - Bond Street – removal of parking along both sides of the street and conversion of existing one-way traffic flow to two way traffic flow (to be agreed with Council)
 - Chapel Street – some removal of parking around the Arthur Street intersection; short term closures, as required (to be agreed with Council).

Any parking removed would be reinstated following completion of the precinct works.

Construction access works include:

- Installation of earth retaining piles to support access ramps and roads to various site locations
- Construction of access ramps, requiring bulk earthworks, within the South Yarra Siding Reserve and the Sandringham rail corridor
- Construction of an access road within the South Yarra Siding Reserve from William Street.

4.1.4 TIMING OF WORKS

The RIA Early Works scope at Eastern Portal is intended to commence in Q4 2018, following the approval of this Early Works Plan in accord with the Incorporated Document, with the works taking up to 12 months to complete. The RIA Early Works will include scheduled rail corridor occupation throughout 2019 to facilitate the site preparation works. Subsequent RIA works at the Eastern Portal will be undertaken in accordance with an approved Development Plan, which has yet to be prepared. Affected stakeholders will be appropriately notified in advance of works commencing.

4.2 WESTERN PORTAL

The RIA works associated with the Western Portal precinct are described below. Accompanying site layout plans can be found in Appendix C.

4.2.1 PREPARATORY WORKS

RIA Preparatory Works at Western Portal includes:

- Site clearing and grading
- Trimming and lopping of vegetation, as required, to facilitate safe construction access
- Installation of construction site boundary hoardings, nominally 2.4 metres high, to facilitate the above listed Preparatory Works.

4.2.2 UTILITY SERVICE RELOCATION AND PROTECTION

Utility works will involve the relocation or protection of services in the rail corridor, including:

- Relocation of electrical, communications and drainage around the Childers Street worksite
- Installation of temporary drainage infrastructure
- Protection of gas main on Childers Street
- Install utility crossings under existing rail corridor track
- Protection or relocation of a 1150mm diameter water main crossing the rail corridor
- Installation of overhead line foundations
- Installation of combined services routes and relocation of signalling assets

4.2.3 SITE PREPARATION

General site preparation works include the following:

- Installation of construction site boundary hoarding, nominally 2.4 metres high, at 1-39 Hobsons Road site and around southern half of Childers Street, to facilitate site establishment works
- Establishment of site offices and facilities at the 1-39 Hobsons Road site, including installation of new site office and the use of the existing heritage buildings located along Hobsons Road, (no direct impacts to the existing heritage buildings will be required) and site clearing, top soil stripping and grading of the site
- Removal of asbestos, as required
- Earthworks along the rail embankment to address Melbourne Water flood offset requirements.

Demolition

Demolition of buildings at 1-39 Hobsons Road, but excluding the heritage listed buildings, to make way for the site office and laydown areas and the temporary public carpark.

Tree removal

The Western Portal RIA Early Works scope will require the removal of up to eight trees located along Childers Street. Refer Appendices C and D for further detail.

Access Arrangements

Access arrangement works are required to facilitate construction access to the site, including allowing for the utility service relocation works and road network changes. These changes would be required for the duration of the RIA Early Works. Refer Appendix C for site layouts plans.

Road network changes include:

- The closure of Childers Street to public traffic, and the implementation of traffic management to accommodate the road closure. Authorised access along Childers Street will only be maintained for Lloyd Street Business Estate over-height vehicles, Council vehicles, Bill Vanina Pavilion, and MTP construction traffic only.
- Vehicle access for residents Childers Street and Tennyson Street (south of the truncation) will be maintained.
- Modifications to the Kensington Road, Childers Street and Hobsons Road intersection to accommodate construction vehicle access. The final design will be determined following further traffic assessments and consultation with Council.
- Closure of all remaining car parking spaces along Childers Street between Kensington Road and Ormond Street.
- Construction of a temporary offset car park, for public use, at 1-39 Hobsons Road (prior to closure of Childers Street car park), with access provided via existing vehicle crossover on Hobsons Road (towards Kensington Road).
- Closure of shared user path on southern side of Childers Street (the diversion of existing and installation of new cycling routes will be coordinated with CYP).
- Construction of RIA staff car parking at 1-39 Hobsons Road site office, with access provided via Hobsons Road (towards northern boundary of site).
- Construction of construction access point from shared driveway between 1-38 Hobsons Road and 41 Hobsons Road.

Note that the CYP scope of works includes occupation of Childers Street and the installation of a temporary turning facility at Ormond Street. RIA site access will interface with the CYP works area and utilise the turning circle at Ormond Street for RIA construction vehicles.

Construction access works include:

- Ground improvement works (including below ground surface guide and diaphragm walls) and earthworks to widen the existing rail corridor embankment to enable construction access to the rail corridor.
- Installation of piles to stabilise the rail corridor embankment, requiring the following:
 - Laying of crushed rock pad to enable installation of piling rig platform
 - Installation of a bentonite storage tanks in the 1-39 Hobsons Road worksite to support the piling process
 - Laying trenched pipes across Kensington Road between 1-39 Hobsons Road worksite and the Childers Street worksite
 - Establish dewatering facility at western end of Childers Street worksite.
- Installation of temporary fencing between live rail corridor and widened rail corridor.

4.2.4 TIMING OF WORKS

The RIA early works scope at Western Portal is intended to commence in Q4 2018, following the approval of this Early Works Plan, with the works taking up to 12 months to complete. Subsequent RIA works at Western Portal will be undertaken in accordance with an approved Development Plan, which has yet to be prepared. Affected stakeholders will be appropriately notified in advance of works commencing.

5. ENVIRONMENTAL MANAGEMENT

This section details how the RIA Early Works will manage the potential impacts of the proposed works, including how the proposed works would be undertaken in accordance with the Metro Tunnel EMF, including the EPRs and the Urban Design Strategy.

5.1 ENVIRONMENTAL MANAGEMENT FRAMEWORK

The Metro Tunnel EMF provides a transparent and integrated governance framework to manage the environment aspects of the broader MTP. It sets out the environmental management systems and plans to be documented by RPV and the contractors, including RIA, as shown in Figure 4.

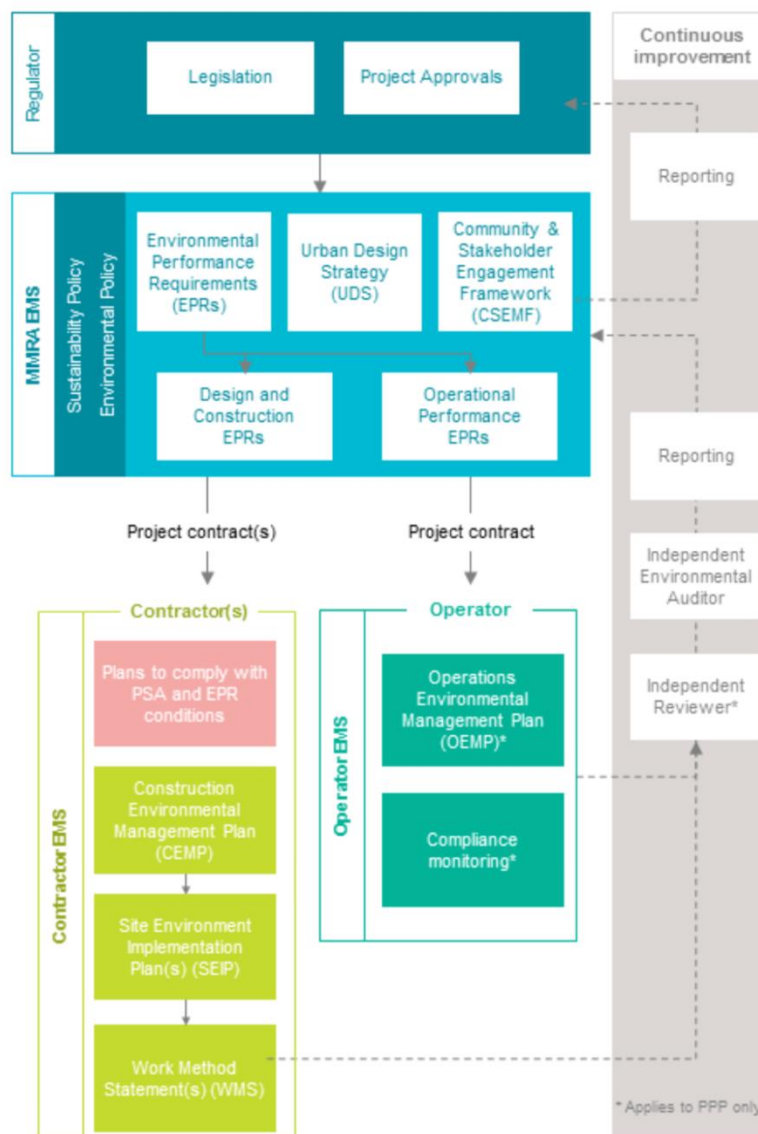


Figure 4 EMF overview. Note: references to “MMRA” to read “RPV”. (Source: Melbourne Metro EMF)

The documents referred to in Figure 4 that RIA must prepare for the Rail Infrastructure works package, including the RIA Early Works, include:

- Environmental Management System (EMS) – the RIA EMS will provide a systematic method of managing the environmental aspects of the Rail Infrastructure works package and will be prepared to align with the overarching RPV EMS.

- Construction Environmental Management Plan (CEMP) – to reflect the requirements of the Metro Tunnel EMF and the EPA Publication No. 480 *Environmental Guidelines for Major Construction Sites*. This will be the main document addressing the applicable EPRs in delivery. The CEMP will be supported by Site Environment Implementation Plans (SEIPs) and sub-plans.
- Site Environment Implementation Plans – individual plans, as required, to identify site specific environmental control measures.
- Work Method Statement – as required, to document descriptions of work activities, approvals required and risk assessment and control measures.
- Plans required to comply with PSA [i.e. the Incorporated Document] and EPR conditions – additional plans, as required, to ensure that all applicable EPRs are appropriately addressed. These plans may be prepared as standalone plans, be included as sub-plans within CEMP, or be incorporated within relevant SEIPs.

Further information is provided regarding transport management and tree management below. The application of these

Transport Management Plan

Transport Management Plans (TMPs) will be prepared in consultation with the Traffic and Transport Working Group (TTWG), a working group comprised of relevant stakeholders including affected Council/s, Public Transport Victoria (PTV), the Department of Economic Development, Jobs, Transport and Resources (DEDJTR), road management authorities, public transport providers and other agencies, such as Melbourne Water and Environment Protection Authority (EPA), as required. TMPs require approval by RPV prior to the commencement of the RIA Early Works.

The TMPs will detail how RIA will minimise disruption to affected local residents and businesses, local traffic movements (including on-road vehicles, bicycles and pedestrians), car-parking, public transport and access to existing public facilities during the RIA Early Works. It will also address the coordination of the RIA Early Works interface with the CYP works and the public to maximise the safety of all road users. The TMPs will detail a clear and organised approach to identifying and managing the direct and cumulative impacts of construction on the transport network. It will be supported by transport modelling, include details of the methodology and program to monitor its implementation, and identify practicable measures to manage unanticipated impacts.

Precinct Transport Management Implementation Plans (PTMIPs) will detail precinct specific construction activity-based transport management measures at each portal, and guide how the interaction between the public and the construction activities will be maintained safely during the RIA Early Works. The PTMIPs will identify transport management initiatives specific to each portal to minimise the construction impacts on the surrounding transport network, including:

- Measures to minimise and manage risks and potential traffic impacts associated with the precinct
- Details of signs and demarcations required to ensure safe and efficient movement of vehicles past the precinct work sites
- Details of suitable routes for vehicles to maintain connectivity for road users as well as construction vehicles, and any alternate routes
- Measures for minimising the number of roads/lanes that are closed at the same time, the duration of road/lane closures and management measures for any temporary or permanent full or partial closure of traffic lanes
- Measures to provide advance notice and communication of impacts to stakeholders and the community
- Details of short and long-term traffic arrangements
- Details of site access where an activity warrants changes or additional signage
- Measures to address potential impacts to pedestrians and cyclists, as well as bicycle parking
- Measures to recognise other projects operating concurrently, where relevant.

Tree Management Plan

RPV is committed to minimising the number of trees required for removal across the MTP and has developed a *Tree Protection and Removal Checklist* specific to the MTP. Each tree removed to date has undergone a rigorous assessment and review, specifically designed to minimise tree impacts. Furthermore, for each tree removed as part of the MTP, as described in the EES, trees will be replaced and additional trees planted to enable RPV to meet the sustainability target to double tree canopy by 2040.

Tree removal, to the minimum extent necessary, will be required as part of the RIA Early Works. RIA will develop a Tree Management Plan, that addresses the RPV *Tree Protection and Removal Checklist* and includes a design and construction hierarchy as follows:

1. Avoid works within designated Tree Protection Zones:
 - a. Tree Protection Zones are to be determined in accordance with AS4970-2009 *Protection of Trees on Development Sites*
 - b. Where practical, priority is to be given to the relocation of infrastructure away from trees to reduce the potential for immediate or future damage.
 - c. If works are required within a designated Tree Protection Zone:
 - i. Works are to be undertaken in accordance with advice received from the Project Arborist
 - ii. Where excavation works are proposed within a Tree Protection Zone, an arborist must prepare a Tree Protection Plan. A Tree Protection Plan must include details in relation to the condition and significance of each tree, and the arboricultural feasibility for relocation (if necessary)
 - iii. Open trenching is to be avoided unless it is demonstrated within the Tree Protection Plan that the viability of the tree will not be affected.
2. Tree and/or root pruning is to only be pursued in instances where it has been assessed by an arborist as not having a detrimental impact on the viability of the tree. Such works must be undertaken in accordance with Australian Standard AS4373-2007 – *Pruning of Amenity Trees*.
3. Tree removal is to be pursued only as a last resort/exception, with preference to be given to trees that will require removal to facilitate the main works program (i.e. trees situated within the designated portal locations). Any tree removal to be undertaken to accord with the EMF and relevant EPRs.

5.2 ENVIRONMENTAL PERFORMANCE REQUIREMENTS

Risk Assessment

An environmental risk assessment was conducted as part of the EES to identify key social, environmental, transport and business risks associated with construction and operation of the MTP and to develop management and mitigation measures to reduce those risks. *Technical Appendix B Environmental Risk Assessment Report* of the EES contains the complete risk register developed for the MTP.

The EES environmental risk assessment has been reviewed to determine which EPRs are applicable to RIA Early Works and the mitigation measures required to manage any potential impacts. The key environmental risk areas and corresponding mitigation strategies associated with RIA Early Works are summarised below.

Table 1 Risk and impact mitigation strategies associated with the delivery of the RIA Early Works

KEY ENVIRONMENTAL RISK AREA	IMPACT MITIGATION STRATEGY
Issues relating to surface water treatment and discharges to surface water	Compliance with applicable EPRs, ongoing consultation with Environment Protection Authority (EPA) and the water management authorities.
Protection of cultural heritage places and values	Compliance with the approved CHMPs and applicable EPRs, notification of applicable stakeholders in advance of works taking place, avoidance of known cultural heritage places (through design and construction methods), implementation of a Heritage Management Plan, and identification of No-Go Zones on SEIPs and construction drawings.

KEY ENVIRONMENTAL RISK AREA	IMPACT MITIGATION STRATEGY
Dust and other emissions impacting sensitive receivers	Compliance with applicable EPRs, notification to affected stakeholders in advance of works taking place, implementation of an Air Quality Management Plan, ongoing monitoring of the effectiveness of management measures.
Removal of trees, especially in the context of impacts to landscape and amenity values	Compliance with applicable EPRs, notification to affected stakeholders in advance of works taking place, following of the design and construction hierarchy identified under the RPV <i>Tree Protection and Removal Checklist</i>
Impacts on existing businesses during the construction phase	Compliance with applicable EPRs, notification to affected stakeholders in advance of works taking place, implementation of a business disruption plan, ongoing monitoring of the effectiveness of management measures.
Management of spoil from excavations, piling works and utility removal, protection, relocation and installation	Compliance with applicable EPRs, notification to affected stakeholders in advance of works taking place, ongoing consultation with EPA to help classify, monitor and manage soil removed from site, compliance with EPA requirements, implementation of a Spoil Management Plan.
Protection of historical heritage places and values	Compliance with the Heritage Management Plan and applicable EPRs, notification of applicable stakeholders in advance of works taking place, avoidance of known historical heritage places (through design and construction methods), implementation of a Heritage Management Plan, and identification of exclusion zone areas.
Issues relating to ground movement	Compliance with applicable EPRs, notification to affected stakeholders in advance of works taking place, adopt design and construction methodology to reduce impacts from ground movement.
Issues relating to groundwater interception / need for dewatering	Compliance with applicable EPRs, notification to affected stakeholders in advance of works taking place, adopt design and construction methodology to reduce impacts to groundwater dependent values.
Noise and vibration generated during the construction phase	Compliance with EPRs, installation of monitoring points at sensitive receivers, the management of works to reduce the potential for adverse amenity impacts, notification to affected stakeholders in advance of works taking place, implementation of a Construction Noise and Vibration Management Plan and a Noise and Vibration Communications Plan.
Impacts to local residents during the construction phase	Compliance with applicable EPRs, notification to affected stakeholders in advance of works taking place, implementation of the Community and Stakeholder Engagement Management Plan, ongoing monitoring of the effectiveness of management measures and consultation and feedback from stakeholders.
Traffic and transport management (includes local traffic congestion, alterations and closures of roads and changes to pedestrian / cyclist routes)	Compliance with applicable EPRs, notification to affected stakeholders in advance of works taking place, implementation of Transport Management Plans, installation of way-finding signage and alternative access plans where significant pedestrian links are to be modified to accommodate works, implementation of measures to reduce disruption to rail services due to occupation of railway land, tram and bus networks, pedestrian and connectivity, to alleviate temporary carpark losses, measures to manage potential conflicts between trucks, pedestrians and cyclists.

As part of the RIA EMS, RIA will develop a detailed risk assessment, consistent with AS/NZS 31000:2009 *Risk management – principles and guidelines*, based on the detailed design of the MTP, as relevant to the RIA scope of works, and with consideration of the risks identified in the EES. The risk assessment, considered a live document and as part of the RIA EMS, will be maintained, reviewed and updated on a regular basis in response to changes in design, construction and operation activities, work methods, technology and legislation and policy. The risk assessment updates will also consider the occurrence of incidents or complaints.

5.2.1 APPLICABLE ENVIRONMENTAL PERFORMANCE REQUIREMENTS

The Incorporated Document requires that the MTP be constructed and operated in accordance with the EPRs documented in the approved Metro Tunnel EMF. The EPRs provide a benchmark for project-wide environmental performance that must be achieved throughout design, construction and operation of the MTP.

The RIA Early Works forms part of one works package of the MTP, and therefore not all EPRs are applicable to the scope of works covered by this plan. Table 2 details the EPRs considered relevant to the RIA Early Works and the proposed response. These responses may be refined following further detail design – appropriate consultation with relevant key stakeholders would occur as required.

Table 2 Applicable EPRs and RIA Response

CATEGORY	EARLY WORKS SPECIFIC RESPONSE	
Environmental Management Framework	EMF1	RIA will operate in accordance with an EMS that is AS/NZS ISO14001:2015 certified, and aligns with the RPV EMS.
	EMF2	<p>A CEMP, sub-plans and SEIPs will be developed and approved for implementation prior to the commencement of the RIA Early Works. These plans and any other strategic documents will be prepared to address the EPRs and guide the delivery of the RIA Early Works. The CEMP will be prepared in accordance with EPA Publication 480, <i>Environmental Guidelines for Major Construction Sites</i> (EPA 1996).</p> <p>A program to set out the process and timing for development of the EMS, CEMP, SEIPs and other associated sub-plans will be integrated into the RIA delivery program.</p> <p>As stakeholder consultation is and will continue to be ongoing throughout the RIA Early Works, the process for development and implementation of the CEMP and SEIPs will include consultation with key stakeholders as required. These include but are not limited to relevant local councils, Heritage Victoria, VicRoads, Melbourne Water, PTV, DEDJTR and the EPA.</p>
	EMF3	An Independent Environmental Auditor has been appointed by RPV for the MTP to review and approve the proposed plans, including the CEMP and SEIPs, as per the MTP program.
	EMF4	<p>RIA will develop a complaints management approach which is consistent with the Australian Standard AS/NZS 10002:2014 <i>Guidelines for Complaint Management in Organisations</i> and the <i>RPV Community and Stakeholder Engagement Framework</i> (CSEMF), which details the process for the recording, management and resolution of complaints from affected stakeholders.</p> <p>The complaints management approach will form part of the <i>RIA Community and Stakeholder Engagement Management Plan</i> (CSEMF). The complaints management approach in the RIA CSEMF will address the requirements of the <i>Business Support Guidelines for Construction</i> (BSGC) (see EPR B2).</p>
Aquatic Ecology & River Health	AE1	<p>The RIA Early Works will incorporate appropriate stormwater treatment measures that address the requirements of the State Environmental Planning Policy (SEPP) (Waters of Victoria) for stormwater management.</p> <p>Methods for management and treatment of stormwater during construction of the RIA Early Works will be detailed within the CEMP. Management methods detailed for suspended solids, litter and other pollutants will be developed to address the best practice performance objectives for achieving compliance with SEPP (Waters of Victoria).</p>
	AE2	The CEMP will address best practice sedimentation and pollution control measures to protect waterways in accordance with <i>Best Practice Environmental Management: Environmental Guidelines for Major Construction Sites</i> – EPA Publication 480 (1996).

CATEGORY	EARLY WORKS SPECIFIC RESPONSE	
		Site specific control measures may include: <ul style="list-style-type: none"> • vehicle wheel wash and rumble grids at worksite egress points • appropriate placement of material stockpiles and chemical storages • covered loads • protection of stormwater inlets • street sweeping • water quality monitoring and treatment.
	AE3	Construction water captured during construction will be discharged to sewer, in accordance with relevant licences such as Trade Waste Agreements sought from the relevant approval authority.
Aboriginal Cultural Heritage	AH1	The works will comply with CHMP No. 13967, which was been prepared and approved under the <i>Aboriginal Heritage Act 2006</i> , to facilitate the delivery of the MTP, including the portal works. RIA Early Works activities at Eastern Portal have been designed to avoid impacts to the Aboriginal place identified by the CHMP at South Yarra Siding Reserve. A Heritage Management Plan (HMP) will be developed that integrates and implements the requirements of the CHMP. These requirements will include: <ul style="list-style-type: none"> • all personnel must complete a site induction that specifically details the requirements of the CHMP for South Yarra Sidings Reserve prior to commencing works • that No-Go-Zones are displayed on site maps, construction drawings or SEIPs • that contingency measures are developed and implemented for any unexpected finds. Note: this also applies to any unexpected Historical Cultural Heritage finds (refer to EPR CH1).
Air Quality	AQ1	Qualitative air quality risk assessments will be completed for both precincts for the activities being undertaken and sensitive receptors present. The outcomes of the risk assessments will determine the air quality criteria to be incorporated into the Air Quality Management Plan (AQMP) to manage and monitor dust and identify control measures to address the key risks to air quality from RIA Early Works, and determine the monitoring requirements for each precinct. <p>Sensitive receptors evaluated in the air quality risk assessment and detailed in the plan will include residential and commercial properties, public parks and outdoor recreational areas. These will also be identified on the SEIPs.</p> <p>The AQMP will include measures to minimise the impacts of dust caused by RIA Early Works activities as identified in the risk assessments, and guide the monitoring to confirm compliance with air quality criteria, in accordance with the SEPPs for Air Quality Management and Ambient Air Quality.</p> <p>Key stakeholders, including the EPA, will be consulted during development of the plan. In addition, measures included in the CSEMP propose respite measures for unavoidable air quality impacts due to RIA Early Works. Notification requirements will also be detailed in the plan.</p>
	AQ2	The AQMP will be developed to manage and monitor dust and other air emissions in accordance with EPA Best Practice Environmental Management: <i>Environmental Guidelines for Major Construction Sites</i> – EPA Publication 480 (EPA 1996). Measures to minimise dust, smoke and emissions due to RIA Early Works activities may include: <ul style="list-style-type: none"> • scheduling of works to minimise works during unfavourable climatic conditions (e.g. no work during high winds or extreme dry weather) • minimising land disturbance, especially during the driest months of the year • stabilising exposed stockpiles, batters and material storage • reinstatement of exposed areas

CATEGORY	EARLY WORKS SPECIFIC RESPONSE	
		<ul style="list-style-type: none"> keeping to designated access roads and enforcing the site speed limit installation of stabilised site entry/exit points application of dust suppression measures (e.g. water sprayers) on access roads covering of truck loads use of street sweepers.
	AQ3	To maintain air quality outcomes in accordance with the <i>SEPP (Air Quality Management and Ambient Air Quality)</i> , measures for monitoring and managing the emission of smoke, dust, fumes and other pollution into the atmosphere during RIA Early Works will be developed and implemented as detailed in the AQMP.
Arboriculture	AR1	Trees identified for removal in this plan are only associated with the RIA Early Works. A Tree Management Plan will be developed to accord with the <i>RPV Tree Protection and Removal Checklist</i> .
	AR4	Tree Protection Plans (TPPs) will be addressed within the Tree Management Plan and will be developed in accordance with AS4970-2009 <i>Protection of Trees on Development Sites</i> and any applicable council tree protection policies. The Tree Management Plan will review the detailed design and construction methodology to provide guidance on maximising tree retention and adequate methods for protecting trees that are to be retained. Where the potential impacts to trees relate to a heritage place, it will be developed in consultation with Heritage Victoria and the relevant council.
	AR5	For any trees on City of Melbourne land to be retained and protected, a bank guarantee or bond of the trees' value will be held against the approved TPP for the duration of works, in accordance with the <i>City of Melbourne Tree Retention and Removal Policy</i> .
Business	B2	A Business Disruption Plan (BDP) will be developed that is consistent with RPV's <i>Business Support Guidelines for Construction</i> and the RIA CSEMP (refer EPR SC3), and will detail measures to manage potential impacts to non-acquired businesses and commercial property owners, and requirements for ongoing engagement with affected businesses during the RIA Early Works. The BDP will be reviewed and approved by RPV.
	B3	A CEMP and sub-plans, relevant to amenity impacts including noise, vibration and air quality, will be developed and implemented for Early Works. The Plans include an AQMP (EPR AQ1), a Noise and Vibration Communications Plan (EPR NV5) and a Construction Noise and Vibration Plan (EPR NV21).
Contaminated Land and Spoil Management	C1	<p>A Spoil Management Plan will be developed in accordance with RPV's Spoil Management Strategy (as presented during the Minister's Assessment of the EES), relevant regulations, standards and best practice guidelines, and will include measures to address acid-forming material.</p> <p>Management measures may include:</p> <ul style="list-style-type: none"> provision of assessment reports to sub-contractors to support appropriate management of spoil and potentially contaminated material additional on-site testing to allow classification and appropriate management of different spoil categories separating contaminated, acid forming or leachable spoils from less contaminated soils for the ease of management and transportation development of contingency measures for discovery of unknown contaminated soil. <p>An Acid Sulfate Soil and Rock Management Sub-Plan (ASSRMP) will be developed to address potential acid forming material.</p>

CATEGORY	EARLY WORKS SPECIFIC RESPONSE	
		Further measures for the disposal of material as 'waste' are included in the Sustainability Management Plan, including guidelines for the management of waste in accordance with the waste hierarchy, waste minimisation strategies, and details of waste as it relates to the ISCA sustainability targets.
	C2	An ASSRMP will be developed as a sub-plan of the SMP to address removal of potential acid forming material.
	C3	A Remedial Management Plan (RMP) will be developed as to address contaminated land and groundwater. The RMP, and design considerations, will consider the outcomes of investigations and modelling results, relevant regulations, standards and best practice guidance. The RMP will be developed to the satisfaction of the EPA.
	C4	A health, safety and environmental plan for the management of hazardous substances will detail the measures for safe handling and storage of hazardous substances to the satisfaction of WorkSafe and in consultation with the EPA. The plan will work in conjunction with emergency response documentation and incident and emergency response procedures, to manage risks to employee, visitor and public health, safety and the environment, associated with hazardous substances.
Historical Cultural Heritage	CH1	The RIA Early Works have been designed to avoid or minimise impacts on the cultural heritage values of heritage places. Where required, mitigation measures will be incorporated into the CEMP and/or SEIPs (refer EPRs CH2 and CH6).
	CH2	The identified heritage buildings at the Glueworks site, will not be directly impacted by the works (refer EPR CH11). No other historical cultural heritage impacts have been identified at either as part of the RIA Early Works.
	CH3	<p>Prior to commencement of relevant works, vibration and ground movement assessments will be undertaken to determine the risk to heritage places and values, in accordance with the applicable vibration and ground movement EPRs. In addition, condition assessments will be carried out for heritage places in proximity to the works, including the Glueworks site (refer CH11).</p> <p>Should damage occur to a heritage place as a result of the RIA Early Works, rectification works will be undertaken under the instruction of a qualified heritage practitioner, in accordance with accepted conservation practice (the Australia ICOMOS Burra Charter 2013), and in consultation with the land owner, Heritage Victoria and other applicable stakeholders.</p>
	CH4	<p>Where heritage places are to be demolished or modified or their setting is to be impacted by RIA Early Works, archival photographic recording will be undertaken prior to works commencing, in accordance with Heritage Victoria's specification for the archival photographic recording of heritage places.</p> <p>The HMP will detail the process for obtaining written approval of archival recordings through consultation with Heritage Victoria or local council. Management measures will include the requirement that archival recording be carried out under the instruction of a qualified heritage practitioner.</p>
	CH6	<p>The HMP will detail management measures for the protection of heritage places and their settings, such as the Glueworks site (refer EPR CH11). Management measures may include:</p> <ul style="list-style-type: none"> • Use of physical controls, such as hoarding, fencing and exclusion zone fencing to eliminate accidental impacts • Training and induction of staff regarding heritage values • Regular inspection and monitoring of controls. <p>These measures will be undertaken in addition to conditions stipulated in any applicable secondary heritage approvals, and in consultation with Heritage Victoria, Council and/or the relevant land manager.</p>

CATEGORY	EARLY WORKS SPECIFIC RESPONSE	
	CH9	<p>The HMP will include measures to avoid, minimise and mitigate impacts to the heritage fabric, including heritage trees, in sensitive areas within heritage places.</p> <p>TPPs will be prepared, as per RPV and relevant council requirements, where Early Works have the potential to affect trees and provide suitable measures to manage works near trees. The Heritage Overlay (HO50) at South Yarra Sidings Reserve will be marked within the HMP (refer to AH1) and the relevant TPP.</p>
	CH11	<p>The HMP will include management measures to ensure no direct impacts occur to the heritage buildings at the Glueworks site, including establishing controls around the retained buildings, as required, to provide an exclusion zone. These exclusion zones will be marked on the SEIP. Some heritage buildings may be used for site offices and/or storage; no modifications would be made to the building facades.</p>
	CH23	<p>The HMP will include management measures so that where heritage street fabric and infrastructure is impacted by RIA Early Works, it will be conserved and/or accurately reconstructed in accordance with statutory controls as detailed in heritage approvals, and will be agreed upon in consultation with Heritage Victoria and the relevant local council.</p>
	CH24	<p>The HMP will identify heritage places that may be vulnerable to damage from construction and include management measures to prevent damage to heritage places as a result of ground movement (refer to EPR GM3).</p>
Flora and Fauna - Terrestrial	FF1	<p>Where the removal of native vegetation is unavoidable, it will be undertaken in accordance with the requirements of the <i>Permitted Clearing of Native Vegetation – Biodiversity Assessment Guidelines</i>, as required in the Incorporated Document.</p>
	FF2	<p>Measures will be developed and implemented, as part of the CEMP to avoid the spread or introduction of weeds and pathogens during construction, including vehicle and equipment hygiene. Any site-specific requirements will be captured on the SEIPs, including areas of known weed infestations.</p>
	FF3	<p>Measures will be developed and implemented, as part of the Tree Management Plan to ensure:</p> <ul style="list-style-type: none"> that trees identified for removal, which may be used for breeding by native wildlife, will be removed outside the spring breeding season (August-December inclusive) where practicable that large old trees with habitat hollows will be inspected by a suitably qualified arborist, and native fauna removed and released at a nearby location immediately outside the impact zones. <p>The Tree Management Plan will include contingency measures in the event that listed fauna species are unexpectedly discovered during works, and associated tree species inspection and removal protocol will detail measures to manage fauna species.</p>
Ground Movement and Land Stability	GM2	<p>Relevant RIA Early Works (e.g. retaining wall piles, bridge abutment piles and piling in the rail corridor) will be designed to limit ground movement within acceptability criteria for vertical, horizontal, and angular deformation. The acceptability criteria will be determined through consultation with the relevant land or asset owner, and will incorporate the findings from investigations reported in the EES, and more recent modelling and investigations.</p>
	GM4	<p>Outcomes of geological modelling will allow identification of potentially affected assets, which require pre-construction condition surveys. The outcomes of pre-construction condition surveys will be used to guide the design and construction techniques/methodology.</p> <p>A database of survey condition information, along with consultation outcomes for each potentially affected asset will be developed and maintained, and all</p>

CATEGORY	EARLY WORKS SPECIFIC RESPONSE	
		stakeholder consultation will be undertaken in accordance with the CSEMP, including the process for sharing the assessments with the property owner.
	GM5	Construction techniques will be adopted to limit ground movement to within acceptability criteria agreed in consultation with potentially affected land and asset owners, and will reflect the findings from the Minister's Assessment of the EES and more recent modelling and investigations.
	GM6	Where properties or assets are affected by ground movement, repair works will be undertaken with consideration of precondition surveys, and in agreement with the relevant stakeholders. Note: Any repair works will be undertaken during RIA Main Works and will thus be addressed in the applicable RIA Main Works documentation.
Groundwater	GW2	The RIA Early Works does not include any significant excavation works. However a groundwater model will be developed, as required, to help understand the local environment and potential impacts of piling works on groundwater levels, flow and quality. The model will inform design and construction techniques/ methodology, and the development of a future Ground Water Management Plan. The groundwater model will be reviewed and independently audited during design in accordance with the Australian Groundwater Modelling Guidelines, and will be updated as required to reflect outcomes of a comprehensive construction monitoring program to be detailed in the GWMP.
Land Use and Planning	LU1	An Urban Design Plan will be developed to guide construction of Early Works by minimising impacts to land use. The plan will reflect the relevant sections of the Metro Tunnel Urban Design Strategy and the Metro Tunnel Creative Strategy for consideration of the potential impacts on existing land uses, and include measures to manage the footprint and impact of construction sites and the temporary loss of public open space.
	LU4	The Urban Design Plan will be developed and implemented to address visual amenity impacts of the temporary structures such as hoardings, noise barriers (where required) and way-finding signage. The plan will consider the relevant sections of the Metro Tunnel Urban Design Strategy and the Metro Tunnel Creative Strategy, and will be developed in consultation with the relevant councils, land managers, and RPV, which may include the Office of the Victorian Government Architect as required.
Landscape and Visual	LV1	Section 3.5 of the Metro Tunnel Urban Design Strategy details general urban design considerations and design measures to help manage construction impacts including maintaining transport options during the construction process, application of principles of Crime Prevention Through Environmental Design, protecting existing land use features from damage, and maintaining an attractive presentation to areas surrounding the works. Section 3.2 of the Metro Tunnel Urban Design Strategy focuses on broader land use and planning issues, and opportunities to implement management actions which align with the aims of the Strategy. These opportunities, where relevant to the RIA Early Works, will be addressed in the Urban Design Plan. Key visual amenity receptors will be included on the SEIPs.
	LV2	The Urban Design Plan will be developed in accordance with the relevant sections and principles of the Metro Tunnel Urban Design Strategy, and will be developed in consultation with the relevant councils, land managers, and RPV, which may include the Office of the Victorian Government Architect as required. As the RIA Early Works scope includes limited reinstatement or re-establishment activities, the Urban Design Plan will focus instead on management of temporary works areas, during their occupation. The plan will focus on management of temporary works areas.
	LV3	Any night works required for the RIA Early Works are to be undertaken in accordance with relevant local council requirements and standards. Measures

CATEGORY	EARLY WORKS SPECIFIC RESPONSE	
		<p>to minimise light spillage will be addressed in the CEMP and relevant SEIPs. Control measures may include:</p> <ul style="list-style-type: none"> • prioritising works to be undertaken during daylight hours • maintaining existing street lighting wherever possible • installing downward facing directional lighting or using diffused lighting sources, and • inspecting lighting setup and plans to minimise impacts to sensitive receptors including residential dwellings.
	LV4	<p>The Urban Design Plan will include measures to consider the use of temporary landscaping and other features or structures during construction to minimise the impacts to visual amenity. When considering the use of temporary visual amenity features or structures, consideration will be given to the sustainability and reuse options of the features/structures.</p>
Noise and Vibration	NV1	<p>A Construction Noise and Vibration Management Plan (CNVMP) will be prepared in accordance with the EPA Publication 1254 Noise Control Guidelines, and to address the requirements of the noise and vibration EPRs. The CNVMP will be updated as required throughout the project to reflect changes to scope of works, construction methods, outcomes of modelling or complaints.</p>
	NV3	<p>Noise and vibration predictive modelling will be carried out across both precincts to assess the potential works impacts, including impacts from airborne noise and ground borne noise and vibration. The modelling will consider the construction methodology, equipment, location and duration of various activities. Modelling will be used to identify potential impacts to sensitive receptors and to determine appropriate mitigation measures, such as acoustic barriers (noise walls) or treatments.</p> <p>The outcomes of modelling will be used to inform the CNVMP which will be audited by the IEA.</p>
	NV4	<p>A noise and vibration model will be informed by both the EES and monitoring results undertaken by the RIA. The model will assess construction noise and vibration levels against the Guideline Targets specified in the EPRs.</p> <p>Where exceedances of the Guideline targets occur, appropriate management measures will be implemented.</p> <p>The model will be calibrated as required following construction monitoring, and updated to reflect significant changes in scope or methodology.</p>
	NV5	<p>The Noise and Vibration Communications Plan will include a process for liaising with potentially affected community stakeholders and land owners regarding potential noise and vibration impacts. The process will be developed in consultation with relevant stakeholders including local councils, EPA Victoria, and other precinct reference groups, as appropriate.</p>
	NV6	<p>A CNVMP will include management measures to be implemented if construction noise is predicted to or does exceed the Guideline Noise Levels at residential locations, as specified in EPA Publication 1254.</p>
	NV7	<p>A CNVMP will include management measures if construction noise is predicted to, or does exceed, the internal noise levels for Sensitive Areas, as per AS/NZS 2107:2000, or adversely impacts a noise sensitive receptor within the Sensitive Area. The noise assessment will consider parameters including the duration of the construction noise, relevant ambient noise levels, any specific acoustic treatments of the Sensitive Area. Consultation with relevant stakeholders will be undertaken to assist in determining level of impact and whether further management measures are required.</p>
	NV8	<p>A CNVMP will include management measures to address instances where DIN 4150 Guideline Targets for structural damage to buildings are predicted to be exceeded or are not achieved. Management measures include conducting pre-construction condition surveys, monitoring of vibration-causing</p>

CATEGORY	EARLY WORKS SPECIFIC RESPONSE
	<p>activities to confirm predicate modelling, and alterations/ changes to construction methods or equipment.</p> <p>If the building is a heritage building, Heritage Victoria will be consulted to determine the appropriate management measures.</p>
NV9	<p>Where modelling indicates the potential for impacts to above ground utility assets and infrastructure, condition assessments will be undertaken, along with consultation with the asset owner, to establish vibration targets.</p> <p>A CNVMP will include a vibration monitoring program which will aim to demonstrate compliance with the vibration guideline targets, and will include details of corrective measures, if guideline targets are not achieved.</p>
NV10	<p>Where modelling indicates the potential for impacts to below ground utility assets, condition assessments will be undertaken, along with consultation with the asset owner, to establish vibration targets.</p> <p>A CNVMP will include a vibration monitoring program which will aim to demonstrate compliance with the vibration guideline targets, and will include details of corrective measures, if guideline targets are not achieved.</p>
NV11	<p>A CNVMP will detail management measures to be implemented for when Guideline Targets cannot be achieved for continuous, intermittent, or impulsive vibration, for the locations specified.</p> <p>Control measures may include scheduling of construction activities outside of certain specified hours, and changes to construction methodology or equipment used to reduce vibration levels.</p>
NV13	<p>A CNVMP will detail management measures to be implemented to protect amenity at residences and hotel rooms, when ground-borne (internal) noise guideline targets are exceeded or predicted to be exceeded.</p> <p>Consultation with relevant stakeholders will be undertaken in accordance with the CSEMP to assist in determining the management measures to be implemented. Control measures will include consultation with potentially affected land owners to determine an acceptable level of disruption, and provision of respite accommodation, if required.</p>
NV21	<p>A CNVMP, developed in consultation with EPA Victoria and relevant councils, will be implemented to address noise and vibration EPRs and will be informed by the modelling undertaken by the acoustic and vibration consultant. The Plan will include:</p> <ul style="list-style-type: none"> • Identification of sensitive receptors • Construction activities that have the potential to generate noise and/or vibration impacts, and an indicative schedule of the works • Management measures to address airborne noise and vibration impacts in accordance with EPA Publication 1254 Noise Control Guidelines, the NSW ICNG, the TfNSW Construction Noise Strategy, and in accordance with the applicable EPRs • Management measures to address haulage noise, such as limiting heavy vehicle movements to normal construction hours, selection of traffic routes to avoid local roads, and enforcement of speed restrictions • Details of noise and vibration monitoring to be undertaken • Details of unavoidable works as assessed and agreed with the IEA. <p>The CNVMP will be supported by the Noise and Vibration Communications Plan, which may form part of the CSEMP, to guide communication related to noise and vibration impacts.</p> <p>The CNVMP will be updated to reflect changes in scope of works, construction methodology and equipment, or outcomes of noise and vibration modelling.</p>

CATEGORY	EARLY WORKS SPECIFIC RESPONSE	
Social and Community	SC2	A relocation management framework will be developed, as part of the RIA Community and Stakeholder Engagement Management Plan (CSEMP), and in accordance with RPV's Residential Impact Mitigation Guidelines.
	SC4	<p>A CSEMP will be developed in accordance with RPV's CSEMF. The CSEMP will establish processes to advise potentially affected stakeholders of the planned construction activities, Project progress, mitigation measures and intended reinstatement measures where applicable. The CSEMP will integrate RIA Early Works activities that potentially impact on community and business operations. The CSEMP will include:</p> <ul style="list-style-type: none"> • Measures to minimise impacts to the development and/or operation of existing facilities including ensuring replacement power, network or other utility services are provided, if necessary and where practicable, where any disruption to such service is likely. • Measures for providing advance notice of significant milestones, changed traffic conditions, interruptions to utility services, changed access and parking conditions, periods of predicted high noise and vibration activities. • Measures for communicating the design of and results from environmental monitoring programs (e.g. vibration, noise, dust, ground movement). • Process for informing landowners about pre-condition property surveys (as stated in EPRs GM4 and NV5). • Process for registering, managing and resolving complaints consistent with Australian Standard AS/NSZ 10002:2014 Guidelines for Complaint Management in Organisations.
	SC6	The CSEMP will include a process to work with relevant local councils to plan for, and coordinate with key stakeholders during, major public events.
	SC10	The CSEMP will include a process for notifying adjoining landholders and other relevant stakeholders of planned activities in the precinct. Written notice will be provided prior to the commencement of relevant RIA Early Works and outline the nature of the works being undertaken, duration, potential impacts and contact details for further information.
Surface Water	SW1	<p>Project design is being influenced by a flood immunity risk assessment and associated flood modelling, the outcomes of which, will be integrated into relevant emergency flood management measures for RIA Early Works.</p> <p>Project design is being undertaken in consultation with the relevant Council and asset-owner / operator.</p> <p>Control measures for the management and treatment of stormwater and overland flows during RIA Early Works will be detailed in the CEMP.</p>
	SW2	<p>Melbourne Water will be consulted to ensure their satisfaction with the integrated water management principles in the stormwater design. This will ensure that the relevant parameters of flood plain storage capacity, flood level risks or flow velocities do not increase as a consequence of the RIA Early Works. Where required, WSUD measures will be integrated as part of the design.</p> <p>The RIA will liaise with the relevant water authority to obtain relevant approvals/ permits if discharge of groundwater to sewer is required (e.g. Trade Waste Agreement).</p>
Transport	T2	A TMP will provide an overarching framework for traffic and transport management across both portal precincts. The PTMIPs will be developed and implemented at a precinct level, and be integrated into the overarching TMP, to minimise disruption to local land uses, traffic, car and bicycle parking, on-road public transport, pedestrian and bicycle movements. Major areas to be considered include:

CATEGORY	EARLY WORKS SPECIFIC RESPONSE
	<ul style="list-style-type: none"> • Kensington Road, Hobsons Road, Childers Street, Ormond Street and Altona Street (Western Portal) • Osborne Street, Arthur Street, William Street and Chambers Street, Toorak Road and Chapel Street (Eastern Portal). <p>Monitoring of the impacts of traffic changes will be undertaken by the RIA, with RPV to support ongoing traffic and transport network planning.</p>
T3	<p>The PTMIPs provide localised precinct-specific measures to manage potential traffic and transport impacts across Early Works, including those issues relating to road network management, truck movements, and parking.</p> <p>Travel strategies will be developed to support the workforce to minimise individual car use and maximise public transport use.</p> <p>Consultation with relevant stakeholders has been undertaken and will continue throughout Early Works, specifically when developing traffic management measures. Stakeholders include the TTWG, road and public transport authorities, councils, waste transporters and other potentially impacted businesses and residents.</p>
T4	<p>A plan to minimise disruption to railway services during construction will be prepared and implemented. The TMP and PTMIPs will also address potential public transport impacts including disruption to rail services due to occupation of railway land, disruption to tram and bus networks, and pedestrian and connectivity.</p> <p>The plan will be developed in consultation with the TTWG, the relevant road management and public transport authorities.</p>
T5	<p>The TMP and PTMIPs will be prepared and implemented for Early Works to address potential active transport impacts including disruption to cyclist and pedestrian connectivity. The plans will detail provision of active controls and way-finding signage and information to maintain safety, and avoid potential conflicts between trucks, pedestrians and cyclists.</p> <p>The plans will be developed in consultation with the TTWG and the relevant councils.</p>
T6	<p>A Travel Demand Management Strategy has been developed by RPV to promote specific transport behaviour changes in response to road, bicycle and pedestrian paths closures/modifications and to reduce traffic congestion around construction sites.</p> <p>The RIA TMP and PTMIPs will incorporate relevant measures from the Strategy, as required, for RIA Early Works.</p>
T7	<p>The design of roadworks and shared path works will be underpinned by transport modelling and aim to minimise carpark loss.</p> <p>TMP will be developed to include measures to alleviate temporary carpark losses, however final reinstatement of car parking will be addressed in main works.</p>
T10	<p>Consultation will be undertaken with local councils and private waste management services to manage changes to road access and subsequent impacts to waste collection and storage.</p> <p>Businesses and residents will be informed of the changes through the procedures described in the CSEMP, with details of impacts to waste management highlighted in the relevant PTMIP.</p>

5.3 URBAN DESIGN STRATEGY

The Metro Tunnel UDS was developed to provide urban design guidance relating to the design, procurement and implementation of the MTP in its entirety. Although the primary focus of the UDS is on the finished built form of the MTP, it also provides guidance relevant to design of temporary works and broader

construction impacts. Section 3.5 of the UDS describes aims, objectives and design guidelines related to managing temporary design and construction impacts of the MTP, including an aim to manage construction in a manner which minimises and mitigates adverse impacts on the valued fabric of the city and ongoing urban activities. It also details design solutions to manage construction impacts and provides direction on management of broader matters including reinstatement, traffic management, and principles of Crime Prevention Through Environmental Design (CPTED).

Temporary elements likely to be visible from public realm include design of hoardings at both precincts, temporary noise barriers at Eastern Portal, and establishment of a bentonite plant, crane platform, and flood compensation earthworks at Western Portal. While these elements are temporary in nature, in some cases they occupy a prominent position in the landscape. Sections of site hoarding will be constructed adjacent to operating train lines and will be visible by passengers. At Eastern Portal, temporary screening may also be constructed adjacent to some residential properties, if deemed to be required.

An Urban Design Plan will be developed by the RIA to guide design and construction of elements such as hoardings and way-finding. The plan will also detail opportunities for heritage interpretation or enhancement and open space activation. Table 3 summarises how the RIA will address the Design Guidelines as outlined under Section 3.5 of the UDS.

Development Plans will be prepared as required by the Incorporated Document, which further reflect and build on the requirements of the UDS. These plans will detail the incorporation of broader urban design principles into the permanent design elements of the project (i.e. tunnels, entrances, connectivity to other transport), and are not relevant to RIA Early Works.

Table 3 Integration of the UDS during RIA Early Works as per Section 3.5 of the Metro Tunnel UDS

DESIGN GUIDELINES	EARLY WORKS RESPONSE
<p>Maintain circulation and transport operations during the construction process</p>	<p>A TMP, and PTMIPs prepared for each portal precinct, will address movement of all modes of transport, including cycle and pedestrian, around and within the portals as it relates to Early Works. These plans are to be developed in consultation with VicRoads, City of Melbourne, City of Stonnington and Yarra Trams, as required, who will be consulted throughout works via the TTWG. Mitigation measures identified/considered within these plans will include:</p> <ul style="list-style-type: none"> • Measures to redirect pedestrian and cyclist movements as necessary to allow for safe access around construction work sites, businesses and properties immediately adjacent to construction work sites • Provisions for universal access, amenity and safety • Provisions for emergency and maintenance access on nearby sites • Timing and locality of public events • Provisions for temporary bus and tram stops, including shelters where appropriate • Provisions for direction signage and temporary signs for businesses and properties which may be obscured by construction activities. <p>Impacts on local pedestrian traffic will be minimised through safe and accessible detours with way-finding signage, noting that planned staging and location of works has been carefully selected to minimise impacts on vehicular traffic.</p> <p>Where impacts are unavoidable, diversions will be identified and implemented, and communicated for safe and efficient circulation of traffic.</p> <p>All works will be coordinated with local councils and key stakeholders to plan around major public events (refer to EPR SC6), and broader stakeholder engagement is to progress in accordance with the RIA CSEMP and RPV Community and Stakeholder Engagement Management Framework.</p>
<p>Protect the viability of, and amenity for, activities at and near construction work sites</p>	<p>The principles of CPTED will be applied when considering access routes, hoardings, site compounds and other works within public spaces during the construction period. This will be an important consideration in the context of planning for Early Works in areas where works are to interface with important pedestrian routes and/or significant areas of public open space (i.e. JJ Holland Park and Hobsons Road at Western Portal, and along Arthur Street at Eastern Portal). Where possible, design features such as transparent fencing, lighting, way-finding signage and other security based initiatives are to be adopted</p>

DESIGN GUIDELINES	EARLY WORKS RESPONSE
	<p>around critical work sites to help manage public safety and improve the potential for the passive surveillance of public open space.</p> <p>In terms of monitoring potential amenity impacts during the delivery of RIA Early Works, acoustic, vibration and air quality consultants have been engaged to prepare models (where required) and develop monitoring programs as part of managing potential noise, vibration and air quality impacts during construction activities. These measures will be captured within the CEMP and sub-plans prepared to minimise any potential impacts on amenity of the local area.</p>
<p>Protect features from damage</p>	<p>Key features impacted by, or proximate to, the RIA Early Works area include a significant number of trees in Eastern Portal and heritage sites, including the Glueworks site at Western Portal.</p> <p>To help protect these features and mitigate against adverse impacts, qualified arborist, archaeologist and/or heritage consultants will inform design requirements and oversee construction works, where necessary. Mitigation measures may include the development of appropriate plans prior to the commencement of works occurring within proximity to sensitive features. This includes the preparation of Tree Protection Plans for works within proximity to trees identified for retention, and consultation with Heritage Victoria in instances where works could impact upon sites listed on the Victorian Heritage Inventory and/or the Victorian Heritage Register (with documentation prepared as required in accordance with the heritage approval process).</p> <p>Specific measures to protect or reuse features include the following:</p> <ul style="list-style-type: none"> • Develop and implement Tree Protection Plans • Works within tree protection zones (including the pruning of trees) are to be supervised by a qualified arborist • Excavation works within a registered heritage site are to be supervised by a qualified archaeologist • Salvage and reuse of materials including blue stone, timber, and public realm/street furniture.
<p>Maintain an attractive presentation to surrounding areas</p>	<p>The delivery of RIA Early Works will seek to maintain clean, attractive, and safe sites during construction works. All temporary enclosures, hoardings and screens are to be designed to be appropriate within the urban environment to help maintain a positive visual presentation to prominent sites, busy pedestrian areas, key public open spaces and residential areas. Screening with interfaces to residential properties will be unobtrusive, where possible.</p> <p>Project branded scrim/screens/hoardings will be used as per the MTP branding suite to ensure consistency across the MTP, with interpretive displays and features to be utilised to add to visual interest and assist in the minimisation of graffiti, bill-posting and other unauthorised advertising. In the context of interpretive displays, RPV and the RIA are to investigate opportunities to convey information about the history of the site and further details about the MTP. This may include interpretation of Aboriginal, archaeological and historical heritage.</p> <p>In accordance with the Metro Tunnel Creative Strategy and where safe and practical, design is to allow for temporary uses (including landscaping), programs of events, and pop-up public spaces to offset the impact of construction activities. Further measures are to be taken to ensure that hoardings contribute to the image and identity of the local areas, whilst respecting the character of their individual settings. Opportunities for creative programming will be investigated on key areas of hoarding visible from train passengers and key areas of public realm.</p> <p>Design and siting of elements including the bentonite plant at Western Portal are to have regard to key view lines and the Metro Tunnel Creative Strategy and Metro Tunnel UDS.</p>

5.4 ROLES AND RESPONSIBILITIES

Roles and responsibilities as described in the Metro Tunnel EMF, and as related to the RIA Early Works, are summarised below.

RPV responsibilities:

- Establish the EMF, UDS and CSEMF, to be approved by the Minister for Planning
- Review and approve the CEMP, SEIPs, TMPs and sub-plans
- Monitor and audit the implementation and compliance of the CEMP, EMF and EPRs, and take corrective action where necessary.

In addition to the activities described earlier in this section, RIA has the additional following responsibilities:

- Comply with all statutory requirements affected by the proposed works, including obtaining any additional approvals where required
- Mitigate environmental risks through both design and construction methods
- Undertake environmental monitoring, auditing and reporting as required by the CEMP to maintain compliance with the EPRs, and take corrective action where necessary.

5.4.1 MONITORING, REPORTING AND AUDITING

Monitoring and Inspection

Environmental monitoring will be undertaken by RIA in accordance with the requirements specified in RIA's CEMP and other plans required to comply with the Incorporated Document and the EPRs. The parameters to be monitored and the frequency of monitoring will reflect regulatory requirements and the level of potential risk to the environment. Monitoring will include periodic inspections of construction works areas and assets constructed.

Monitoring includes, but is not limited to:

- surface and groundwater water quality (including prior to discharge)
- air quality
- noise and vibration
- implementation of environmental and heritage controls (e.g. tree protection fencing, heritage exclusion zones, erosion and sediment controls)
- changes to traffic and access.

The outcomes of monitoring and inspections will be captured through RIA's EMS which prescribes methods to allocate, track and close out corrective actions where required.

Reporting

Performance against the RIA CEMP and other plans required to comply with the Incorporated Document and EPRs will be reported to RPV and relevant government agencies as appropriate. The CEMP will describe the reporting and external notification requirements, including what needs to be reported and to whom, and the timeframe for reporting. Specifically, RIA will submit the following:

- Monthly environmental performance reports to RPV providing information on external and internal audit findings, monitoring results, incidents and status of compliance against the EPRs
- Quarterly project activity reports contains a 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.

Auditing

RPV has appointed an Independent Environmental Auditor (IEA) for the MTP, pursuant to EPR EMF3, who will be responsible for auditing compliance with approved plans. The IEA scope includes audits of the EMS, the CEMP, sub-plans, SEIPs and approval conditions, as relevant, including compliance with the EPRs. This will involve both site inspections as well as an office based desktop reviews of documentation and processes. Additional requirements include referral of groundwater modelling in accordance with the

Australian Groundwater Modelling Guidelines, and review of the Construction Noise and Vibration Assessment Reports.

The CEMP will outline the RIA audit program, including details of frequency, methods, responsibilities, planning requirements and reporting, with reference made to IEA requirements. When establishing the audit schedule and scope, the environmental risk and the results of previous audits and the key audit outcomes will be considered. Non-conformances identified in the audits will be recorded in a management system, where the recording of actions to close-out items will be maintained. The records will be included in the reports to RPV.

6. COMMUNICATIONS AND STAKEHOLDER ENGAGEMENT APPROACH

Effective communications and engagement is an essential component of the RIA Early Works program. RIA's communications and stakeholder engagement approach will build on the wider approach used for the MTP and will be consistent with the RPV *Community and Stakeholder Engagement Management Framework* (CSEMF). Communications and engagement will adhere to the principles outlined below.

Table 4 Engagement Principles from RPV CSEMF

PRINCIPLE	GOAL
Effective	Engagement is open, consistent, inclusive, accessible and transparent throughout planning and delivery of the project
Timely	Engagement spans all stages of the project, ensuring information is provided to stakeholders as the project develop and feedback is responded to and incorporated in the project's development
Meaningful	Engagement is clear on the elements of this project that can be influenced by the community and stakeholders, how the feedback will be used and is explicitly on which elements of the project are fixed and the reason for this
No surprises	Engage early to gain understanding of interests, concerns, requirements and preferred outcomes. Close the loop to determine how feedback has been considered

As detailed in Table 2, EPR SC4, RIA will develop an overarching CSEMP to govern its community and stakeholder engagement activities. The CSEMP will include a commitment to develop relationships with key community groups and stakeholders, and work collaboratively with the project's other contractors and RPV's Communications and Stakeholder Engagement team. This approach will enable the RIA to undertake coordinated and consistent communications and engagement.

The CSEMP will govern the notification process for interested stakeholders and the community, enabling clear, timely, transparent communications in line with required notice periods. It will also comply with RPV's overarching frameworks and the relevant EPRs for managing impacts on businesses and residents.

To successfully deliver communications and engagement across the RIA project, all project staff and subcontractors will be appropriately inducted and involved in the engagement process. This will include:

- Project induction – requires all members of the project team and contractors to undertake compulsory induction training, which includes community relations awareness
- Construction meetings – enables the team to discuss key construction issues, impacts and mitigation strategies and agree on communications and engagement actions
- Toolbox meetings – provides an opportunity to educate contractors on the importance of communications and engagement and to reinforce project expectations
- One-on-one meetings – meetings to inform, discuss and resolve project issues which may impact stakeholders or the community and agree an approach to reduce impacts
- Information sharing – sharing project information with staff and contractors and continue to highlight the importance of positive community and stakeholder engagement
- Regular project report – highlighting communication and engagement activities, issues and achievements to be prepared weekly and monthly.

6.1 EARLY WORKS PLAN CONSULTATION PROCESS

RPV conducted an extensive engagement program with all key stakeholders and communities affected by the proposed RIA Early Works Plan. Feedback received has informed the development of the RIA Early Works Plan.

Key consultation activities included:

- Individual briefings and follow up meetings with key stakeholders
- Public display of the draft RIA Early Works Plan on the RPV website from 23 July 2018 to 10 August 2018, including opportunity to complete an online survey and provide feedback
- Doorknocks of 404 residents and businesses located in proximity to the proposed works from 23 to 24 July 2018
- Letters to 3,150 occupants of residential properties and businesses located within or nearby the portal precincts. The letter contained information about the proposed early works, timing and information sessions. The letter also invited the community to participate in an online survey seeking feedback on their views.
- Three drop-in community information sessions, including:
 - Western Portal – Bill Vanina Pavilion, Kensington, 28 July and 1 August 2018
 - Eastern Portal – Punthill Apartments, South Yarra, 31 July 2018
- One drop-in business information session, at Eastern Portal, Chapel on Chapel, South Yarra, 6 August 2018
- Two information pop-ups sessions, including:
 - South Kensington station, 24 July 2018
 - South Yarra Siding Reserve, 28 July 2018
- Online engagement, including:
 - E-newsletter updates to the existing Metro Tunnel email distribution list.
 - Social media posts encouraging people to provide feedback on the Plan

Key stakeholders identified included:

- Local government
 - **City of Melbourne** – Local government authority and land manager of local parks, community facilities and local road network in the Western Portal precinct
 - **City of Stonnington** – Local government authority and land manager of local parks, community facilities and local road network in the Eastern Portal precinct
- State agencies
 - **Melbourne Water** – Statutory authority responsible for the management and protection of the Melbourne's major water resources
 - **Transport for Victoria (TfV)** – State agency responsible for coordinating and planning for Victoria's transport system
 - **Public Transport Victoria (PTV)** – Statutory authority that manages Victoria's train, tram and bus services
 - **VicRoads** – Statutory authority that manages Victoria's arterial road network
 - **Traffic and Transport Working Group (TTWG)** – Working group comprised of RPV, PTV, DEDJTR, road management authorities, relevant Councils, public transport providers and other agencies as required.
- Community and business groups
 - **South Yarra (Eastern Portal) Community Reference Group** – Community Reference Group established during the EES process to provide a forum for information sharing and feedback on the Eastern Portal precinct of the Metro Tunnel Project
 - **Kensington and Arden Community Reference Group** – Community Reference Group established during the EES process to provide a forum for information sharing and feedback on the Western Portal and Arden precincts of the Metro Tunnel Project
 - **Kensington Association** – community group comprising Kensington residents
 - **Lloyd Street Business Estate** – business park located east of Western Portal works area
 - **Chapel Street Traders Association** – businesses located east of Eastern Portal works area
- Interface delivery partners
 - **Cross Yarra Partnership (CYP)** – PPP contractor engaged to deliver the Tunnels and Stations works package. A delivery interface exists at the portal precincts with CYP delivering part of the portal infrastructure.

- **Rail Systems Alliance (RSA)** – alliance contractor engaged to deliver the Rail Systems work package. A design interface exists at the portal precincts, with RSA designing the signaling infrastructure for RIA to deliver.

In total there were over 48,000 interactions in relation to the RIA Early Works Plan, including individual briefings offered and/or provided to key stakeholders, 3150 letters sent to the local community and the RIA Early Works Plan being downloaded over 2200 times. However only 73 submissions were received from the broader community and two formal submissions received from key stakeholders, with issues raised generally pertaining to the management of construction impacts. No objections were made to the RIA Early Works Plan.

No material changes to the RIA Early Works Plan were required following a review of the feedback received. The changes made have been to provide greater clarity in relation to design details. Most feedback received requested further information in relation to delivery timings, construction impacts and impact mitigation measures, which will be addressed through the mechanisms identified in the RIA Early Works Plan, including RIA's responses to the relevant EPRs and ongoing engagement with the relevant stakeholders.

RPV and RIA will continue to engage with key stakeholders to provide project updates and to seek their views on project development activities and issues where relevant. The local community will also be kept informed during the delivery of the RIA early works. This engagement will be guided by the RPV CSEMF and the RIA CSEMP and be governed by the relevant EPRs.

RIA will also continue to engage with key stakeholders and the community as it proceeds to the legacy design and development plan phases of the works.

7. CONCLUSION

This Early Works Plan has been prepared to address the requirements of the *Melbourne Metro Rail Project Incorporated Document*, as it relates to the RIA Early Works at the Western Portal (Kensington) and the Eastern Portal (South Yarra).

RIA has identified the applicable EPRs as approved under the Environmental Management Framework, in the context of the RIA Early Works, and detailed how the RIA will manage the potential impacts of the proposed works in accordance with the EPRs and the UDS.

Any other works required as part of the RIA Main Works scope will be addressed in subsequent precinct specific Development Plans.

A draft version of the RIA Early Works Plan was provided to key stakeholders and placed on public display between the 17 July 2018 and 10 August 2018 (i.e. 15 business days). All stakeholders were encouraged to review the draft Early Works Plan and make a submission. This RIA Early Works Plan, as submitted to the Minister for Planning, has been updated to address issues raised as part of the consultation process. A summary of the consultation process is provided in the *RIA Early Works Plan Consultation Summary Report*.

Once approved, this RIA Early Works Plan will allow for the RIA Early Works to commence in accordance with the obligations detailed and addressed within the plan.

**APPENDIX A – EASTERN PORTAL EARLY
WORKS SITE LAYOUT PLANS**

**APPENDIX B – EASTERN PORTAL TREE
REMOVAL TABLE**

Eastern Portal Tree Removal Table

No.	Tree ID	Location	Tree Species	Common Name	Reason for removal during Early Works
Trees identified for removal in EES process					
1	EP001	South Yarra Sidings Reserve	<i>Cedrus atlantica</i> 'Glauca'	Blue Atlas Cedar	Trees removed to prepare RIA site access
2	EP002		<i>Fraxinus</i> sp. Ash	Ash	
3	EP003		<i>Ficus macrophylla</i>	Moreton Bay Fig	
4	EP004		<i>Ficus macrophylla</i>	Moreton Bay Fig	
5	EP005		<i>Ficus macrophylla</i>	Moreton Bay Fig	
6	EP006		<i>Ficus macrophylla</i>	Moreton Bay Fig	
7	EP007		<i>Schinus areira</i>	Peppercorn Tree	
8	EP008		<i>Melia azedarach</i>	White Cedar	
9	EP009		<i>Schinus areira</i>	Peppercorn Tree	
10	EP010		<i>Schinus areira</i>	Peppercorn Tree	
11	EP011		<i>Schinus areira</i>	Peppercorn Tree	
12	EP012		<i>Schinus areira</i>	Peppercorn Tree	
13	EP013		<i>Eucalyptus cladocalyx</i>	Sugar Gum	
14	EP014		<i>Phoenix canariensis</i>	Canary Islands Date Palm	
15	EP015		<i>Corymbia maculata</i>	Spotted Gum	
16	EP016		<i>Corymbia maculata</i>	Spotted Gum	
17	EP017		<i>Corymbia citriodora</i>	Lemon-scented Gum	
18	EP018		<i>Corymbia citriodora</i>	Lemon-scented Gum	
19	EP019		<i>Corymbia maculata</i>	Spotted Gum	
20	EP020		<i>Corymbia citriodora</i>	Lemon-scented Gum	
21	EP021		<i>Acacia pycnantha</i>	Golden Wattle	
22	EP022		<i>Acacia pycnantha</i>	Golden Wattle	
23	EP023		<i>Acacia pycnantha</i>	Golden Wattle	
24	EP024		<i>Acacia pycnantha</i>	Golden Wattle	
25	EP025		<i>Acacia pycnantha</i>	Golden Wattle	
26	EP026		<i>Schinus areira</i>	Peppercorn Tree	
27	EP027		<i>Eucalyptus leucoxylon</i>	Yellow Gum	
28	EP028		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
29	EP029		<i>Schinus areira</i>	Peppercorn Tree	
30	EP030		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
31	EP031		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
32	EP032		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
33	EP033		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
34	EP034		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
35	EP035		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
36	EP036		<i>Angophora costata</i>	Smooth-barked Apple	
37	EP037		<i>Eucalyptus melliodora</i>	Yellow Box	
38	EP038		<i>Angophora costata</i>	Smooth-barked Apple	
39	EP039		<i>Eucalyptus melliodora</i>	Yellow Box	
40	EP040		<i>Eucalyptus melliodora</i>	Yellow Box	
41	EP041		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
42	EP042		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
43	EP043		<i>Ficus</i> sp.	Fig	
44	EP044		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
45	EP045		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
46	EP046		<i>Eucalyptus sideroxylon</i>	Red Ironbark	
47	EP047		<i>Eucalyptus sideroxylon</i>	Red Ironbark	

No.	Tree ID	Location	Tree Species	Common Name	Reason for removal during Early Works
48	EP048		Pittosporum sp.	Pittosporum	
49	EP049		Acacia implexa	Lightwood	
50	EP050		Brachychiton acerifolius	Illawarra Flame Tree	
51	EP051		Pyrus calleryana	Callery Pear	
52	EP214		Schinus areira	Peppercorn Tree	
53	EP218		Acacia spp.	Wattles	
54	EP116	Rail corridor east (south William Street)	Eucalyptus botryoides	Southern Mahogany	Trees removed to facilitate corridor widening and site setup
55	EP117		Eucalyptus botryoides	Southern Mahogany	
56	EP118		Eucalyptus botryoides	Southern Mahogany	
57	EP119		Schinus areira	Peppercorn Tree	
58	EP120		Schinus areira	Peppercorn Tree	
59	EP121		Grevillea robusta	Silky Oak	
60	EP122		Fraxinus angustifolia ssp. angustifolia	Desert Ash	
61	EP123		Schinus areira	Peppercorn Tree	
62	EP124		Schinus areira	Peppercorn Tree	
63	EP125		Schinus areira	Peppercorn Tree	
64	EP126		Eucalyptus botryoides	Southern Mahogany	
65	EP127		Schinus areira	Peppercorn Tree	
66	EP128		Schinus areira	Peppercorn Tree	
67	EP129		Schinus areira	Peppercorn Tree	
68	EP130		Eucalyptus botryoides	Southern Mahogany	
69	EP131		Eucalyptus botryoides	Southern Mahogany	
70	EP132	Eucalyptus botryoides	Southern Mahogany		
71	EP133	Schinus areira	Peppercorn Tree		
72	EP134	Rail corridor west (south William Street)	Schinus areira	Peppercorn Tree	Trees removed for site access and corridor widening
73	EP135		Eucalyptus spathulata	Swamp Mallet	
74	EP136		Eucalyptus spathulata	Swamp Mallet	
75	EP137		Schinus areira	Peppercorn Tree	
76	EP138		Eucalyptus sp.	Eucalypt	
77	EP139		Eucalyptus sp.	Eucalypt	
78	EP140		Schinus areira	Peppercorn Tree	
79	EP141	Schinus areira	Peppercorn Tree		
80	EP152	Rail corridor east (north William Street)	Schinus areira	Peppercorn Tree	Trees removed to facilitate corridor widening and site setup
Additional trees identified for removal (in Incorporated Document Project Land)					
81	EP301	William St (south)	Fraxinus CV	Ash	Trees removed to facilitate construction access
82	EP302		Pyrus calleryana CV	Ornamental Pear	
83	EP303		Pyrus calleryana CV	Ornamental Pear	
84	EP304		Pyrus calleryana CV	Ornamental Pear	
85	EP305		Pyrus calleryana CV	Ornamental Pear	
86	EP306	William St (north)	Fraxinus CV	Ash	
87	EP307		Fraxinus CV	Ash	
88	EP308		Fraxinus CV	Ash	
89	EP309		Pyrus calleryana CV	Ornamental Pear	
90	EP310		Pyrus calleryana CV	Ornamental Pear	

No.	Tree ID	Location	Tree Species	Common Name	Reason for removal during Early Works
91	EP311		Pyrus calleryana CV	Ornamental Pear	
92	EP318		Pyrus calleryana CV	Ornamental Pear	
93	EP319		Pyrus calleryana CV	Ornamental Pear	
Additional trees identified for removal (out of Incorporated Document Project Land)					
94	EP312	Chambers Street	Pyrus calleryana CV	Ornamental Pear	Trees removed to facilitate construction access
95	EP313		Pyrus calleryana CV	Ornamental Pear	
96	EP314		Pyrus calleryana CV	Ornamental Pear	
97	EP320		Pyrus calleryana CV	Ornamental Pear	

**APPENDIX C – WESTERN PORTAL EARLY
WORKS SITE LAYOUT PLANS**

**APPENDIX D – WESTERN PORTAL TREE
REMOVAL TABLE**

Western Portal Tree Removal Table

No	Tree ID	Location	Tree Species	Common Name	Reason for removal during Early Works
1	W036	Childers Street	<i>Tristaniopsis laurina</i>	Water Gum	Trees removed for RIA Worksite
2	W037		<i>Tristaniopsis laurina</i>	Water Gum	
3	W038		<i>Tristaniopsis laurina</i>	Water Gum	
4	W039		<i>Tristaniopsis laurina</i>	Water Gum	
5	W040		<i>Tristaniopsis laurina</i>	Water Gum	
6	W041		<i>Tristaniopsis laurina</i>	Water Gum	
7	W042		<i>Tristaniopsis laurina</i>	Water Gum	
8	W035		<i>Callistemon viminalis</i>	Weeping Bottlebrush	