



WestConnex M4 East

# Quarterly Construction Compliance Report – July 2016

<b>Project:</b>	M4 East – Design and Construct
<b>Contract Number:</b>	15.7105.1373
<b>Document Number:</b>	M4E-ES-RPT-PWD-01501
<b>Revision Date:</b>	12 September 2016

## Document Approval

Rev	Date	Prepared by	Reviewed by	Remarks
A	25/07/2016	CSJ	SMC & ER	
0	23/08/2016	CSJ	SMC & ER	
1	12/09/2016	CSJ	SMC & RMS	Submitted to DP&E



# Table of Contents

Glossary of terms.....	3
1 Introduction.....	5
1.1 Background.....	5
1.2 Project description.....	5
1.2.1 Overall project.....	5
1.2.2 Proposed staging.....	6
1.3 Purpose.....	8
1.4 Environmental management system overview.....	8
2 Program requirements.....	9
2.1 Department of Planning and Environment notification.....	9
2.2 Periodic review.....	9
2.3 Reporting.....	11
2.3.1 Compliance Reporting.....	11
2.3.2 Other reporting.....	12
2.4 Environmental auditing.....	13
3 Construction Activities.....	16
3.1 Construction Field Activities.....	16



## Glossary of terms

Term / acronym	Definition
BMS	Blast Management Strategy
CEMP	Construction Environmental Management Plan
CoA	Minister's Conditions of Approval
CSJ	CPB Contractors Samsung John Holland joint venture; a consortium comprising CPB Contractors, Samsung C&T Corporation and John Holland
CTP	Compliance Tracking Program
D&C	Design and construct
DP&E	NSW Department of Planning and Environment
EIS	Environmental impact statement
EMS	Environmental management system
ER	Environmental Representative
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	NSW Environment Protection Authority
EPL	Environment protection licence
HARD	Historical Archaeological Research Design
Keystone	A web-based document management system that provides the primary document management application for CSJ on the project and will be used to manage correspondence, design documentation, electronic distribution and approval processes, records and identified records and quality documentation.
PCCR	Pre-Construction Compliance Report
PIRMP	Pollution Incident Response Management Plan
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Project	WestConnex M4 East Project, SSI 6307
Project Company	WCXM4 Co
QCCR	Quarterly Construction Compliance Report
REMM	Revised environmental management measures, included in the Submissions and Preferred Infrastructure Report
Roads and Maritime	Roads and Maritime Services
SH&E	Safety, Health & Environment
SPIR	Submissions and Preferred Infrastructure Report
SSI	State significant infrastructure



Term / acronym	Definition
Synergy	<p>Synergy is a safety and environmental reporting application and consists of the following modules:</p> <p>SHE Management – events including: incidents, near hits, report only, hazards, stakeholder contacts, regulatory visits, drug and alcohol positive tests</p> <p>Metrics – work hours, number of people, environmental data such as materials, water, energy and wastes, etc. Campaigns can be tailored to drive specific lead indicators.</p> <p>Compliance – general applicability, typically used to track conditions and aid in reporting</p> <p>Actions – Assign and track actions.</p>
WCX	WestConnex
WCXM4 Co	Project Company



# 1 Introduction

## 1.1 Background

WestConnex is one of the NSW Government's key infrastructure projects which aims to ease congestion, create jobs and connect communities. The 33 km motorway linking Sydney's west and south-west with the Sydney Central Business District, Sydney Airport and Port Botany is being delivered as a series of separate projects.

The WestConnex M4 East project (M4 East, the project, SSI 6307) comprises one section of the WestConnex scheme. The project will upgrade and extend the M4 Motorway, primarily in tunnel, from Homebush Bay Drive at Homebush to Parramatta Road and City West Link (Wattle Street) at Haberfield. The Proponent for the project is Roads and Maritime Services (Roads and Maritime) and the Project Company (WCXM4 Co) is delivering the project. WCXM4 Co has engaged CPB Samsung John Holland Joint Venture (CSJ) to design and construct the project.

On 2 December 2014, the project was declared by the Minister for Planning to be State significant infrastructure (SSI) and critical State significant infrastructure (critical SSI), under sections 115U(4) and 115V of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and clause 16 of the *State Environmental Planning Policy (State and Regional Development) 2011*.

An environmental impact statement (EIS) (AECOM GHD 2015) was prepared and placed on public exhibition from 9 September to 2 November 2015. Submissions were received from government, agencies, organisations and the public in response to the project. A Submissions Report has been prepared in response to submissions received during the exhibition period and was finalised in December 2015. The project was approved by the Minister for Planning on 11 February 2016, subject to the Minister's Conditions of Approval (CoA).

## 1.2 Project description

### 1.2.1 Overall project

The project would comprise the following key features:

- Widening, realignment and resurfacing of the M4 between Homebush Bay Drive at Homebush and Underwood Road at Homebush;
- Upgrade of the existing Homebush Bay Drive interchange to connect the western end of the new tunnels to the existing M4 and Homebush Bay Drive, while maintaining all current surface connections;
- Two new three-lane tunnels (the mainline tunnels), one eastbound and one westbound, extending from west of Pomeroy Street at Homebush to near Alt Street at Haberfield, where they would terminate until the completion of the possible future M4–M5 Link (which is subject to planning approval). Each tunnel would be about 5.5 kilometres long and would have a minimum internal clearance (height) to in-tunnel services of 5.3 metres;
- A new westbound on-ramp from Parramatta Road to the M4 at Powells Creek, west of George Street at North Strathfield;
- An interchange at Concord Road, North Strathfield/Concord with on-ramps to the eastbound tunnel and off-ramps from the westbound tunnel. Access from the existing M4 to Concord Road would be maintained via Sydney Street. A new on-ramp would be provided from Concord Road southbound to the existing M4 westbound, and the existing on-ramp from Concord Road northbound to the existing M4 westbound would be removed;
- Modification of the intersection of the existing M4 and Parramatta Road, to remove the left turn movement from Parramatta Road eastbound to the existing M4 westbound;



- An interchange at Wattle Street (City West Link) at Haberfield, with an on-ramp to the westbound tunnel and an off-ramp from the eastbound tunnel. The project also includes on- and off-ramps at this interchange that would provide access to the M4–M5 Link. In addition, the westbound lanes of Wattle Street would be realigned;
- An interchange at Parramatta Road at Ashfield/Haberfield, with an on-ramp to the westbound tunnel and an off-ramp from the eastbound tunnel. In addition, the westbound lanes of Parramatta Road would be realigned;
- Installation of tunnel ventilation systems, including ventilation facilities within the existing M4 road reserve near Underwood Road at Homebush (western ventilation facility) and at the corner of Parramatta Road and Wattle Street at Haberfield (eastern ventilation facility). The eastern ventilation facility would serve both the M4 East and M4–M5 Link projects. Provision has also been made for a fresh air supply facility at Cintra Park at Concord;
- Associated surface road work on the arterial and local road network, including reconfiguration of lanes, changes to traffic signalling and phasing, and permanent road closures at a small number of local roads;
- Pedestrian and cycle facilities, including the permanent re-routing of part of the existing eastbound cycleway on the northern side of the M4 from west of Homebush Bay Drive to near Pomeroy Street, and a new westbound cycleway on-ramp connection from Queen Street at North Strathfield to the existing M4;
- Tunnel support systems and services such as electricity substations, fire pump rooms and tanks, water treatment facilities, and fire and life safety systems including emergency evacuation infrastructure;
- Motorway operations complex on the northern side of the existing M4, east of the Homebush Bay Drive interchange;
- Provision of road infrastructure and services to support the future implementation of smart motorway operations (subject to separate planning approval);
- Installation of tolling gantries and traffic control systems along the length of the project;
- Provision of new and modified noise walls;
- Provision of low noise pavement for new and modified sections of the existing M4; and
- Enabling and temporary works, including construction power, water supply, ancillary site establishment, demolition works, vegetation clearance, property adjustments and public transport modifications (if required).

An overview of the project at completion is shown in Figure 1.

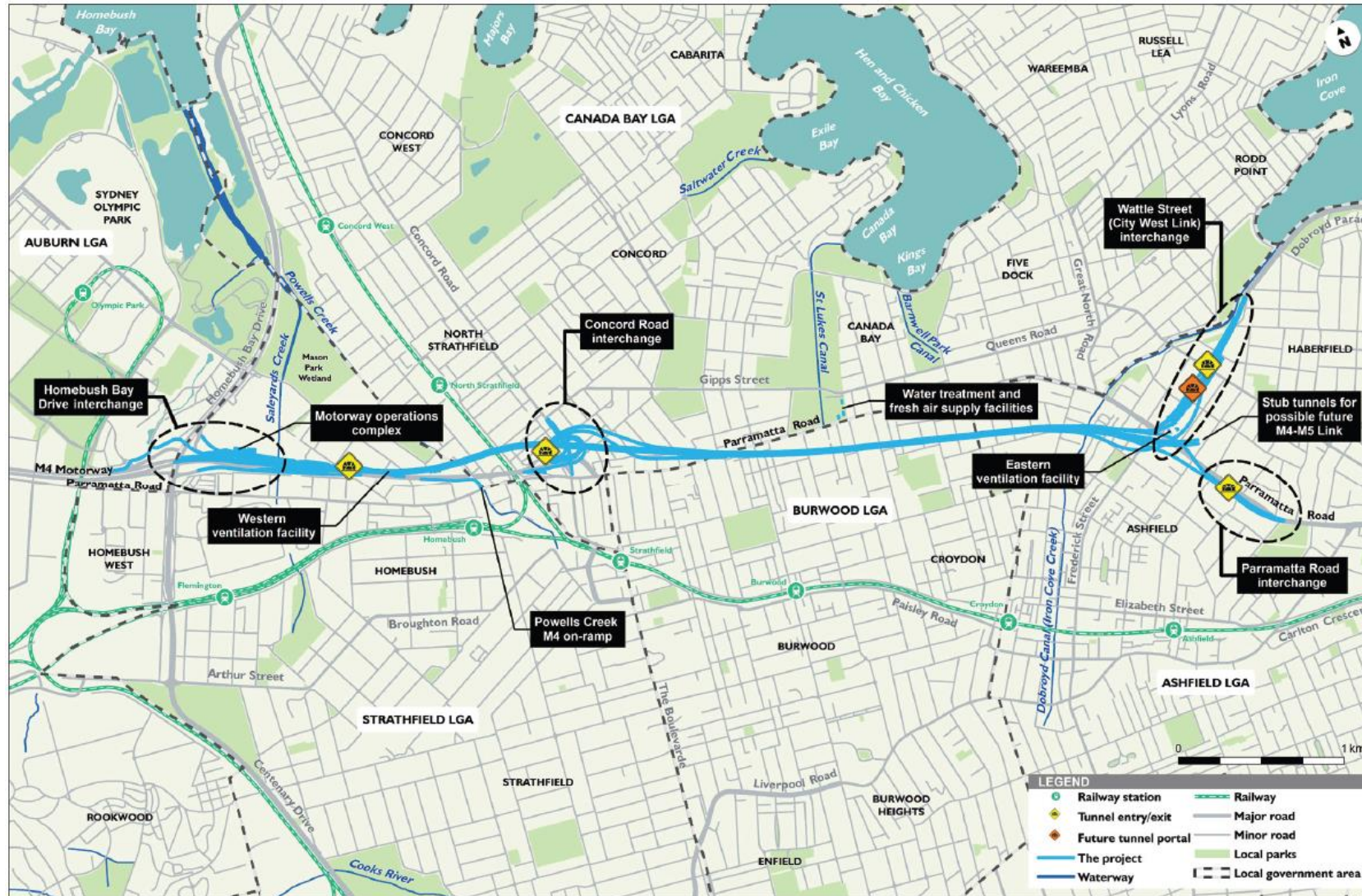
## 1.2.2 Proposed staging

Roads and Maritime has elected to stage the M4 East project in accordance with CoA A10. The stages are described in detail in the M4 East Staging Letter and summarised below:

- Stage 1: construction activities (e.g. investigations, demolition, minor vegetation clearance, installation of environmental controls and services installation/relocation), site establishment (e.g. installation of access arrangements, establishment of piling platforms, piling for acoustic sheds and temporary shafts/declines), initial excavation of Cintra Park declines to 3 mbgl,
- Stage 2: continuation of Stage 1 activities, and commencement / completion of all other construction activities, including excavation of the Cintra Park decline below 3 mbgl, tunnelling, demobilisation and rehabilitation.

The key distinguishing feature of Stage 2 is the excavation of the Cintra Park decline below 3 mbgl, at which point groundwater is expected to be encountered, and commencement of tunnelling, which is defined by the launch of roadheaders. Pre-Construction Compliance Reports were provided prior to the commencement of each stage of construction works on 22 April and 10 May 2016.

Figure 1: Project overview





## 1.3 Purpose

The purpose of this Quarterly Construction Compliance Report (QCCR) is to satisfy CoA A14(c)(ii) of the planning approval and to provide to the Department of Planning and Environment (DP&E) a report that provides a status on the compliance of the project with conditions and requirements. This report provides a status on the compliance of the project from 22 April to 22 July 2016.

The CPB Samsung John Holland Joint Venture (CSJ), WCXM4 Co (Project Company) and Roads and Maritime Services (Roads and Maritime) together are responsible for compliance with the project conditions and requirements.

The scope of this report is based on CoA A14. The requirements relevant to this QCCR are provided in Table 1.

## 1.4 Environmental management system overview

The environmental management system (EMS) is the primary system to manage and control the environmental aspects of the project during pre-construction and construction. It also provides the overall framework for the system and procedures to ensure environmental impacts are minimised and legislative requirements are fulfilled.

The CSJ EMS is based on the CPB Contractors EMS, which was adapted to address project requirements and joint venture requirements.

The Construction Environmental Management Plan (CEMP) is the key document of the EMS. The strategies defined in the CEMP have been developed with consideration of the CoA and the revised environmental management measures (REMM) presented in the M4 East Submissions Report. The CEMP establishes the system for implementation, monitoring and continuous improvement to minimise impacts from the project on the environment and community.

This report is separate from the Compliance Tracking Program and the CEMP, but is part of a suite of environmental management documents prepared for the M4 East project.





## 2 Program requirements

The CoA relevant to the QCCR are detailed in Table 1.

Table 1: Conditions of Approval for the QCCR

No.	Condition	Reference
A14	The Proponent shall prepare and implement a Compliance Tracking Program (CTP) to track compliance with the requirements of this approval. The Program shall be submitted to the Secretary for approval prior to the commencement of construction and operate for a minimum of 24 months following commencement of operation, subject to the Secretary's review of the outcomes of the Independent Environmental Audit Report referred to in condition E46. The operation of the program may be extended if the Secretary determines that there has been unsatisfactory compliance. The Program shall include, but not necessarily be limited to:	A CTP has been prepared to satisfy this condition. The CTP was provided to the Secretary for approval on 25 July 2016, prior to the commencement of construction and was approved on 18 April 2016. The CTP will operate for a minimum of 24 months following commencement of operation.
(c)	provision for periodic reporting of compliance status to the Secretary, including but not limited to: <ul style="list-style-type: none"> <li>ii quarterly Construction Compliance Reports, for the duration of construction</li> </ul>	This QCCR has been prepared to satisfy this condition. The QCCR provides a description of compliance status of the project for the period from 22 April to 22 July 2016, and will be provided to the Secretary.

### 2.1 Department of Planning and Environment notification

CSJ (through WCXM4 Co and Roads and Maritime) provided notification to the Secretary on 22 April 2016 that the project intended to commence Stage 1 construction works on 22 April 2016, and Stage 2 construction works on 10 May 2016.

Further written notification will be provided to the Secretary prior to the commencement of operation.

### 2.2 Periodic review

Regular compliance activities, such as inspections, observations and monitoring have been undertaken in accordance with CEMP Section 8.

Environmental controls are inspected regularly to ensure their ongoing suitability and effectiveness. Environmental monitoring is carried out to establish pre-construction benchmarks, confirm compliance with the conditions of environmental approvals, licences and laws and to provide early indication of potential adverse impacts to the environment or community.

A summary of monitoring requirements specifically identified in the Conditions of Approval for the construction phase of the project are summarised in Table 2. Monitoring requirements are addressed within specific programs or plans as identified in the final column. The document in which the operational audit requirements are addressed may be refined prior to the commencement of operation.

Table 2: Project monitoring requirements identified in the CoA

CoA ref	Required monitoring	Where addressed
Construction phase		
B18	Surface water and groundwater monitoring required at specific locations and frequency that are representative of the potential extent of impacts from the project.	Water Quality Monitoring Program
B45	Monitoring and maintenance procedures for built elements, rehabilitated vegetation and landscaping	Urban Design and Landscape Plan



CoA ref	Required monitoring	Where addressed
B56	Monitoring social impacts and reviewing the effectiveness of mitigation measures.	Community and Social Management Plan
D1	The Environmental Representative must monitor the implementation of environmental management plans and monitoring programs required under the CoA.	Construction Environmental Management Plan (CEMP)
D22	Vibration testing and monitoring to identify minimum working distances to retained heritage items to prevent cosmetic damage.	Construction Noise and Vibration Management Plan (NVMP) Construction Heritage Management Plan (HMP)
D27(f)	Appropriate monitoring during blasting activities.	Blast Management Strategy (if blasting is required)
D51(e)	Mitigation, monitoring and management procedures implemented to minimise environmental and amenity impacts of ancillary facilities.	Ancillary Facilities Management Plan (AFMP)
D51(i)	Monitor, review and amend the Ancillary Facilities Management Plan.	AFMP
D56(e)	Monitoring of environmental performance across the project.	CEMP
D56(e)(i)	Monitor and manage dust emissions.	Construction Air Quality Management Plan (AQMP)
D56(e)(iii)	Monitor and manage waste generated during construction.	Waste and Resources Management Plan (WRMP)
D56(e)(iv)	Monitor and manage hazard and risks across the project.	CEMP and each sub-plan
D56(e)(v)	Monitor and rectify impacts to third party property and infrastructure.	Community Communication Strategy
D57(a)(xi)	Monitor, review and amend the Construction Traffic and Access Management Plan.	Construction Traffic and Access Management Plan (TAMP)
D57(b)(x)	Monitor effectiveness of mitigation and management measures implemented during proposed works.	NVMP
D57(b)(xi)	Monitor, review and amend the Construction Noise and Vibration Management Plan.	NVMP
D57(c)(ii)(C)	Monitor and report on impacts to heritage items.	HMP
D57(c)(iii)	Monitor, review and amend the Construction Heritage Management Plan.	HMP
D57(d)(vi)	Monitor the effectiveness of flora and fauna management measures.	Construction Flora and Fauna Management Plan (FFMP)
D57(d)(viii)	Monitor, review and amend the Construction Flora and Fauna Management Plan	FFMP
D57(e)(iii)	Monitor air quality impacts.	AQMP
D57(e)(vii)	Monitor, review and amend the Construction Air Quality Management Plan.	AQMP
D57(f)(v)	Monitor water quality at acid sulfate soils treatment areas.	Acid Sulfate Soils Management Plan (ASSMP)
D57(f)(vi)	Monitor the effectiveness of actions and measures for management soil and water impacts.	Construction Soil and Water Management Plan (SWMP) and Water Quality Monitoring Program (WQMP)
D57(f)(vii)	Monitor, review and amend the Construction Soil and Water Management Plan.	SWMP



CoA ref	Required monitoring	Where addressed
Operational phase		
E1	Monitor pollutants within the tunnel.	Operational Environmental Management Plan (OEMP)
E8	Monitor pollutants associated with ambient air quality.	OEMP
E13	Monitor pollutants from the ventilation outlets.	OEMP
E26(h)	Monitor and manage environmental performance across the project during the operational phase.	OEMP
E29(f) and (g)	Monitor operational noise, including on surrounding roads which experience significantly increased traffic volumes as a result of the project. Monitor noise in response to complaints. Monitor and review the Operational Noise Management Plan.	Operational Noise Management Plan (ONMP)
E23	Undertake additional noise monitoring and concurrent traffic counting to confirm proposed noise and vibration control measures that would be implemented for the operational phase of the project.	Operational Noise and Vibration Review (ONVR)
E34	Monitor operational noise and vibration to compare actual noise and vibration performance of the project against the noise performance predicted in the Operational Noise and Vibration Review.	Operational Noise and Vibration Compliance Report

Formal periodic review of the suite of CoA will be undertaken quarterly (this report) as identified in CoA A14(c). The review will be led by the Environment and Sustainability Manager with input from other disciplines including community engagement, design and construction. Reviews will continue to be undertaken every three months during construction, with another review also undertaken prior to the commencement of operation.

## 2.3 Reporting

### 2.3.1 Compliance Reporting

CSJ will prepare quarterly compliance reports (this report) describing the compliance status of the project against the CoA and REMM. Input / review from the Environmental Representative and WCXM4 Co has been sought prior to submission to the Secretary.

The indicative timeframe for compliance reports is identified in Table 3.

Table 3: Indicative schedule of compliance reports

Item	Details	Timing / indicative timeframe	Responsibility	Recipient of report
Pre-construction compliance report	Status against CoA and REMM before construction starts	Submitted prior to the commencement of construction for Stage 1 on 22 April 2016. Submitted prior to the commencement of construction for Stage 2 on 10 May 2016	Environment and Sustainability Manager	DP&E; WCXM4 Co; Environmental Representative



Item	Details	Timing / indicative timeframe	Responsibility	Recipient of report
Construction compliance report	Status against CoA and REMM during construction phase	Quarterly throughout construction / July 2016 – this report October 2016 January 2017 April 2017 July 2017 October 2017 January 2018 April 2018 July 2018 October 2018 January 2019	Environment and Sustainability Manager	DP&E; WCXM4 Co; Environmental Representative
Pre-operation compliance report	Status against CoA and REMM before operation starts	Once, prior to commencement of operation / March 2019	Environment and Sustainability Manager	DP&E; WCXM4 Co; Environmental Representative

This compliance report includes a summary of the activities undertaken during the reporting period.

Compliance tracking tables form an integral part of the compliance reports and are included in Annexure A and Annexure B. The tables provide a format for recording compliance and include:

- Condition / environmental requirement;
- Project phase to which the condition or requirement is applicable;
- Compliance status;
- Person / team responsible for the condition / requirement; and
- Comment or evidence of compliance.

Annexure A contains further detail for each CoA. Details regarding the relevant project stage (as summarised in Section 1.2.2), timing and approval requirements would be included as relevant.

### 2.3.2 Other reporting

Additional reporting requirements identified in the project documents are included in Table 4. Further reporting may be necessary as works progress. This table is replicated from Section 8.5 of the CEMP. Refer to the CEMP for the most recent reporting requirements.

Table 4: Additional reporting requirements

Report	Details	Frequency	Standard	Responsibility	Recipient of report
Monthly environmental report	To be incorporated into the project monthly report - to address environmental statistics (e.g. incidents, regulatory action, complaints on environmental issues), monitoring program performance, key environmental issues.	Monthly, by the 5 <sup>th</sup> Business Day of each month	SWTC Appendix C.2, 1.1	Environment and Sustainability Manager	WCXM4 Co; Roads and Maritime; Independent Certifier; parent companies



Report	Details	Frequency	Standard	Responsibility	Recipient of report
Environmental Representative monthly report	Report on <ul style="list-style-type: none"> <li>the Environmental Representative's actions and decision on matters specified in CoA D1 for the preceding month</li> <li>of site environmental performance following routine inspections</li> <li>any non-conformances with the CEMP and corrective/ management actions required.</li> </ul>	Monthly	D&C Deed, Schedule 31, Schedule 2 (i); CoA D2	Environmental Representative	DP&E WCXM4 Co CSJ
EPL annual returns	Report on compliance with EPL No 20734	Annually	EPA annual return pro forma EPL No 20734 Condition R1	Environment and Sustainability Manager	EPA
Material harm report	Written details of notification of incidents causing or threatening material harm to the environment	Within 7 days of incident causing or threatening material harm	EPL No 20734 Condition R2	Environment and Sustainability Manager	EPA, DP&E
EPA requested report	As requested by the EPA	As required by EPA	EPL No 20734 Condition R3	Environment and Sustainability Manager	EPA
Noise and vibration reports	Submit a Preliminary Investigation Report and subsequent Follow-Up Investigation Report in respect of any noise or vibration monitoring undertaken in accordance with the EPL.	As requested by EPA	EPL No 20734 Condition R4	Environment and Sustainability Manager	EPA
CEMP certification	Certification regarding the EMS and compliance with project requirements	Every 2 months and 15 Business Days	D&C Deed Schedule 33 Appendix H	Environment and Sustainability Manager	WCXM4 Co

## 2.4 Environmental auditing

Environmental audits will be conducted at regular intervals during construction of the project to ensure compliance. Internal and external environmental audits will be undertaken in accordance with AS/NZS ISO 19011.

An indicative audit schedule is included in Table 5.



Table 5: Indicative audit schedule

Audit	Details	Timing	Responsibility	Recipient of audit report
Internal audit	Compliance with approval and legal requirements, Roads and Maritime specifications, CEMP	Annually (alternate 6 monthly to the audit below)	Environment and Sustainability Manager	CSJ WCXM4 Co
External audit	Compliance with EMS (ISO 14001) in accordance with CPB Contractors requirements	Annually (alternate 6 monthly to the audit above)	External independent auditor	CSJ WCXM4 Co
External audit	Compliance with the CEMP in accordance with D&C Deed Schedule 33, CI 4	Not exceeding 5 months and 15 business days	WCXM4 Co External independent auditor	CSJ WCXM4 Co Independent Certifier

An internal audit of the project was completed by the CPB Contractors Group Environmental Manager on 9 and 10 June 2016.

The Proponent will undertake an independent environmental audit as required for the operational phase of the project. The details of the operational audit program would be provided to the Secretary prior to the commencement of operation.

Additional audit requirements identified in the CoA are summarised in Table 6. The document in which the operational audit requirements are addressed may be refined prior to the commencement of operation.

Table 6: Additional audit requirements identified in the CoA

CoA ref	Audit details	Recipient of the audit report	Where addressed
Construction phase			
B22	Site Audit Statement prepared by an accredited Site Auditor if remediation is required, verifying that the disturbed area has been or can be remediated to a standard consistent with the intended land use.  Where land is remediated, a final Site Audit Statement will be prepared by an accredited Site Auditor, certifying that the contaminated disturbed areas have been remediated to a standard consistent with the intended land use.	Final Site Audit Statement to be submitted to Secretary and relevant councils prior to operation of the project.	Contaminated Land Management Plan
B35	An independent Road Safety Audit(s) is to be undertaken by an appropriately qualified and experienced person during detailed design to assess the safety performance of any new or modified local road, parking, pedestrian and cycle infrastructure provided as part of the SSI	Audit findings and recommendations will be made available to the Secretary on request.	Construction Traffic Access and Management Plan



CoA ref	Audit details	Recipient of the audit report	Where addressed
Operational phase			
E1	In-tunnel air quality sampling points and visibility monitoring points established must be audited prior to its commencement of monitoring. Verification and compliance auditing is to be undertaken by an independent person(s) or organisation(s) approved by the Secretary,	N/A	OEMP
E8	Ambient air quality monitoring results must be subject to an independent audit at six-monthly intervals (or at a longer interval, if approved by the Secretary). The auditor must be approved by the Secretary in consultation with the NSW Environment Protection Authority and the project's Air Quality Community Consultative Committee (AQCCC),	The auditor's report must be directly provided to the Proponent and the AQCCC.	OEMP
E13	Ventilation outlet monitoring equipment must be independently audited prior to its commencement of monitoring. Auditing is to be undertaken by an independent person(s) or organisation(s) approved by the Secretary	N/A	OEMP
E23	Continuous emissions monitoring systems installed and operated as required by CoA E13 must undergo relative accuracy test audits at an interval not exceeding 12 months, or as otherwise agreed to by the Secretary in consultation with the EPA.	N/A	OEMP
E24	Conduct an audit of the air quality monitoring (in tunnel and external) at six-monthly intervals.	All audit data will be available for inspection by the Secretary, upon request. A copy of the audit report must be issued to the Proponent and AQCCC.	OEMP
E36	Traffic mitigation measures recommended as part of the Road Network Performance Review Plan would be subject to independent road safety audits.	N/A	OEMP
E43	Prior to the opening of the project to traffic, a full audit of the fire and life safety system as defined by the fire engineering study developed in condition E42 must be undertaken by an Accredited Fire Engineer.	The results of the audit must be submitted to FRNSW prior to opening of the project to traffic.	OEMP
E46	Within 12 months of the commencement of operation, and at any other stage required by the Secretary, the Proponent must commission an Independent Environmental Audit of the SSI.	The Proponent must submit a copy of the audit report to the Secretary and relevant public authorities, together with its response to any recommendations contained in the audit report.	OEMP



## 3 Construction Activities

### 3.1 Construction Field Activities

From 22 April to 22 July 2016, the following construction activities occurred in the field:

- Demolition of heritage and non-heritage houses, including salvage, at the Underwood Road civil and tunnel site (C3), Concord Road civil and tunnel site (C5), Northcote Street tunnel site (C7), Wattle Street civil site (C9) and Parramatta Road civil site (C10),
- Completed establishment of Homebush Bay Drive civil site (C1), including installation of environmental controls, clearing and excavation to create an access road,
- Vegetation on the northern and southern sides of the M4 Motorway was completed,
- Commenced remediation on the northern side of the M4 Motorway, within the Homebush Bay Drive civil site (C1) and within the Underwood Road civil site (C3a),
- Commenced earthworks within the Homebush Bay Drive civil site (C1) for widening of the M4 Motorway,
- Construction of a temporary westbound off-ramp for the M4 Motorway to Homebush Bay Drive,
- Commenced remediation to the north of the M4 and at Underwood site,
- Construction of piling pads and commencement of piling for structures at Homebush and Underwood Road civil compound,
- Commenced establishment of the Pomeroy Street civil site (C2), including clearing and installation of environmental controls,
- Commenced establishment of the Underwood Road civil site (C3a), including installation of environmental controls, clearing, and installation of temporary noise walls,
- Continued establishment of the Underwood Road tunnel site (C3b), including installation of environmental controls, installation of the temporary noise wall, excavation and construction of a piling platform for the acoustic shed,
- Completed piling for the shaft at the Underwood Road tunnel site (C3b) and commenced shaft excavation,
- Geotechnical and contaminated land investigations were completed at the Powells Creek civil site (C4),
- Commenced establishment of the Concord Road civil site (C5a), including installation of environmental controls, clearing and earthworks,
- Establishment of Concord Road Tunnel Establishment Ancillary Facility at 28 Edward Street, Concord, which was approved by the ER,
- Commenced establishment of the Concord Road tunnel site (C5b), including installation of environmental controls, clearing and earthworks,
- Commenced excavation and installation of ground support for the decline at the Concord Road tunnel site (C5b)
- Excavation of the decline below 3mbgl at the Cintra Park tunnel site (C6),
- The first road header was launched, with driven tunnelling commencing at Cintra Park tunnel site (C6),
- Continued establishment of the Cintra Park tunnel site (C6), including installation of environmental controls, site offices, spoil bins and the acoustic shed,
- Establishment of Northcote Street Establishment Ancillary Facility at 2-4 Wattle Street, Haberfield, which was approved by the ER,





- Commenced establishment of the Northcote Street tunnel site (C7), including installation of environmental controls, installation of the temporary noise wall, excavation and construction of a piling platform for the acoustic shed,
- Temporarily closed Northcote Street for the duration of construction,
- Completed piling for the tunnel access ramp at the Northcote Street tunnel site (C7) and commenced excavation,
- Establishment of Wattle Street Establishment Ancillary Facility at 18 Walker Avenue, Haberfield, which was approved by the ER,
- Commenced establishment of the Wattle Street civil site (C8 & C9), including installation of environmental controls and installation of the temporary noise wall,
- Commenced construction of a piling platform for the Parramatta Road Ventilation shaft,
- Establishment of Parramatta Road Establishment Ancillary Facility at 195 Parramatta Road, Haberfield, which was approved by the ER,
- Commenced establishment of the Parramatta Road civil site (C10), including installation of environmental controls, the temporary noise walls and offices,
- Temporarily closed Chandos Street for the duration of construction, and
- Relocation, installation and protection of utilities for the project.



# Annexure A Minister's Conditions of Approval



Note: Within the responsibility column – the Proponent is RMS; Project Company is WCXM4 Co; the Contractor is CSJ

Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
PART A													
ADMINISTRATIVE CONDITIONS													
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT													
A1		In addition to meeting the specific performance criteria established under this approval, the Proponent must implement all feasible and reasonable measures to prevent and/or minimise any harm to the environment that may result from the construction or operation of the SSI.	Yes	Yes	Pre-Construction Construction Operation	Ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	AFMP Stage 1, as reviewed and approved by DP&E on 26 February 2016 and AFMP Stage 2, as reviewed and approved by DP&E on 13 May 2016. CEMP and Sub-Plans, as reviewed and approved by DP&E on 22 March 2016. All feasible and reasonable measures have been implemented to prevent and/or minimise harm to the environment that may result from construction of the SSI. No incidents of environmental harm have occurred during the reporting period.
A2	(a) (b) (c)	The Proponent must carry out the SSI in accordance with the conditions of approval and generally in accordance with the:  (a) State significant infrastructure application (SSI 6307);  (b) <i>M4 East Environmental Impact Statement – Volumes 1A, 1B, 2A, 2B, 2C, 2D, 2E, 2F, 2G and 2H</i> prepared by AECOM Australia Pty Ltd and GHD Pty Ltd, dated September 2015; and  (c) <i>M4 East Submissions Report – Volumes 1A, 1B and 2</i> (WestConnex, 2015).	Yes	Yes	Pre-Construction Construction Operation	Ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	All WestConnex M4E documents have been prepared in accordance with the requirements of MCoA A2(a) through (c). All conditions and revised environmental management measures (REMMs) relevant to the management plans have been included and addressed within these documents. Construction compliance details are contained in this Quarterly Construction Compliance Report (QCCR) for the period from 22 April to 22 July 2016. Ongoing compliance with the MCoA and revised environmental management measures (REMMs) are provided in the CSJ Compliance Tracking Program (CTP) and will continue to be reported according to the timeframes included in Section 2.3 of this QCCR. Consistency Assessments have been prepared and approved for undertaking utilities works and geotechnical investigations as follows:



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													<ul style="list-style-type: none"> <li>• Geotechnical Investigations (approved by RMS on 1 April 2016),</li> <li>• Single Point Extensometers Installation Outside Approved Footprint (approved by RMS on 17 March 2016),</li> <li>• Utility Relocation (approved by RMS on 12 February 2016),</li> <li>• Utilities and services enabling works (approved by RMS on 27 April 2016),</li> <li>• Utilities and services enabling works – Addendum (approved by RMS on 10 June 2016),</li> <li>• Utilities and services enabling works – Addendum 2 (submitted to RMS on 21 July 2016; not yet approved),</li> <li>• Tree removal at Underwood Road (approved by RMS on 7 July 2016), and</li> <li>• Powells Creek Bus Stop Relocation (approved by RMS on 14 July 2016)</li> </ul>
A3	(a)  (b)	In the event of an inconsistency between:  the conditions of this approval and any document listed in condition A2 inclusive, the conditions of this approval will prevail to the extent of the inconsistency; and  any document listed in condition A2 (a) to (c) inclusive, the most recent document will prevail to the extent of the inconsistency.	Yes	Yes	Pre-Construction Construction Operation	Ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	Where inconsistencies occur the: (a) conditions of this approval prevail; and (b) the most recent document prevail.  If inconsistencies are identified, they will be reported quarterly as outlined in Section 2.3 of this QCCR.
A4	(a)  (b)	The Proponent must comply with any reasonable requirement(s) of the Secretary arising from the Department's assessment of:  any reports, plans or correspondence that are submitted in accordance with this approval; and  the implementation of any actions or measures contained in these reports, plans or correspondence.	Yes	Yes	Pre-Construction Construction Operation	Ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	CSJ has implemented the CTP to track compliance with MCoA and REMMs, and will report compliance regularly as follows: <ul style="list-style-type: none"><li>• DP&amp;E: QCCR (this report);</li><li>• EPA: Annual Return; and</li><li>• WCXM4 Co / RMS: Monthly Report.</li></ul> CSJ has responded to and incorporated comments resulting from the DP&E assessment of the AFMP (D1), CCS (C1), CEMP



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													<p>(D56) and Sub-Plans (D57(a) through (f)) and Site Specific AFMPs (D53) into final revisions of the documentation prior to DP&amp;E approval of the construction documentation.</p> <p>Additional documents submitted during the quarter included the Spoil Management Plan, Water Reuse Strategy, Stormwater Drainage Reports and Flood Mitigation Strategies. Comments received from DP&amp;E in relation to these documents has been incorporated into revised versions prior to finalisation.</p> <p>Any additional reasonable reporting requirements requested by the Secretary will be responded to in accordance with this condition. There were no such requests in the reporting period to which this QCCR applies.</p>
<b>LIMITS OF APPROVAL</b>													
A5		This approval will lapse 5 years after the date on which it is granted, unless the works of this SSI approval are physically commenced on or before that date.	Yes	No	Commence works covered by approval.	29/02/2016	No	N/A	N/A	N/A	CSJ	Complete	<p>Preliminary establishment works (as defined under the definition of construction) commenced under this planning approval on 11 February 2016.</p> <p>Site establishment works commenced under the approved AFMP on 29 February 2016.</p> <p>A letter to notify of the commencement of Stage 1 construction, under the definition provided in the planning approval was provided to DP&amp;E on 22 April 2016. Notification of the commencement of Stage 2 construction was provided to DP&amp;E on 10 May 2016.</p>
A6		Where requested by the Secretary, the Proponent must provide evidence as to how feasible and reasonable measures were considered and taken into account. <i>Note:</i> <i>Community expectations must be taken into account but it is not expected that specific community consultation will be required in every instance.</i>	Yes	Yes	Pre-Construction Construction Operation	Ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	No requests have been made by the Secretary requiring the provision of evidence of how feasible and reasonable measures have been considered during the period to which this QCCR applies.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
A7		This approval does not apply to the establishment of ancillary facilities where establishment has been assessed in accordance with any applicable requirements of the <i>Environmental Planning and Assessment Act, 1979</i> and site establishment works commenced prior to commencement of construction.	No	No	Prior to issue of planning approval.	N/A	No	N/A	N/A	N/A	CSJ	Not yet triggered	No assessment or approvals were obtained for establishment of ancillary facilities under parts of the EP&A Act other than Part 5.1 State significant infrastructure (i.e. this approval). The establishment of all ancillary sites was undertaken under the approved Stage 1 AFMP (26 February 2016), Stage 2 AFMP (13 May 2016) and any subsequent revisions.
<b>STATUTORY REQUIREMENTS</b>													
A8		The Proponent must ensure that all licences, permits and approvals are obtained as required by law and maintained as required throughout the life of the SSI. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals.	Yes	Yes	Pre-Construction	26/02/2016	N/A	N/A	N/A	N/A	CSJ	Open	The CEMP identifies the legislative and other requirements of the Project, including required licences, permits and approvals. The CSJ CTP tracks compliance with required Project approvals, licences and permits and a quarterly compliance report is produced (this report). All approvals and permits have been obtained for works which occurred in the reporting period that applies to this QCCR, as follows: <ul style="list-style-type: none"> <li>Environment Protection Licence (EPL #20734) dated 26 February 2016.</li> </ul>
A9		This approval does not apply to the operation of off-site spoil receiving locations and facilities. The receipt of spoil at these location and facilities must be undertaken in accordance with approvals or licences applying to those locations or facilities.	Yes	Yes	Pre-Tunnelling and Excavation	End of spoil management works.	No.	N/A	N/A	N/A	CSJ	N/A	All spoil management, including approvals checks for receiving sites, was undertaken in accordance with the Project Spoil Management Plan, as required by CoA D46 and approved by DP&E on 30 June 2016.
<b>STAGING</b>													
A10	(a)	The Proponent may elect to construct and/or operate the SSI in stages. Where staging is proposed, the Proponent must submit a Staging Report to the Secretary prior to the commencement of each proposed stage. The Staging Report must provide details of:  (a) how the SSI would be staged, including general details of work activities associated with each stage and the general timing of when each stage would commence; and	Yes	Yes	Pre-Construction	11/04/2016	N/A	11/04/2016	N/A	N/A	WCXM4 Co; CSJ	Complete	The Proponent notified the Secretary that they intend to stage the project, with a Staging Report lodged to the Secretary on 11 April 2016 (revised Staging Report provided on 21 April 2016). The first stage commenced on 22 April 2016 and included demolition, site establishment, excavation of the Cintra Park decline to 3 mbgl and



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(b)	details of the relevant conditions of approval, which would apply to each stage and how these will be complied with across and between the stages of the SSI.											<p>initial construction activities; whilst the second stage commenced on 10 May 2016 and included excavation of the decline below 3 mbgl, tunnelling and remaining construction activities.</p> <p>The Stage 1 Pre-Construction Compliance Report was attached to the Staging Report and identified how the conditions will be complied with during the two stages.</p> <p>The Stage 2 Pre-Construction Compliance Report was attached to a letter notifying the commencement of Stage 2 construction works and identified how the conditions would be complied with during the second stage of works.</p>
A11		<p>Where staging of the SSI is proposed, these conditions of approval are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stage(s).</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the activities on site are covered by relevant and suitable strategies, plans or programs at all times; and</li> <li>If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.</li> </ul>	Yes	Yes	Pre-Construction	11/04/2016	N/A	11/04/2016	N/A	N/A	CSJ	Open	<p>The Stage 1 Pre-Construction Compliance Report was attached to the Staging Report and identified how the conditions will be complied with during the two stages.</p> <p>The Stage 2 Pre-Construction Compliance Report was attached to a letter notifying the commencement of Stage 2 and identified how the conditions will be complied with during the second stage of works.</p>
COMPLIANCE MONITORING AND TRACKING													



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
A12		The Proponent will be responsible for any breaches of the conditions of approval resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>All persons (including contractors, sub-contractors and visitors) coming to the SSI site have completed relevant Project and site specific inductions before being able to visit or undertake works on site.</p> <p>The Project inductions have been prepared to address the requirements under all relevant Project approvals. All breaches of conditions of approval will be reported in accordance with A15 and A16, and in accordance with the RMS Environmental Incident and Classification and Reporting Procedure, as outlined in the Project CEMP.</p> <p>There were no breaches of conditions of approval on site during the construction period which this QCCR applies.</p>
A13		In the event of a dispute between the Proponent and another public authority, in relation to an applicable requirement in this approval, either party may refer the matter to the Secretary for resolution. The Secretary's determination of any such dispute will be final and binding on the parties unless further statutory approval is required.	Yes	Yes	Pre-Construction Construction Operation	Ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	There have been no disputes between the Proponent and any public authority during the construction period to which this QCCR applies.
A14		<p>The Proponent must prepare and implement a Compliance Tracking Program to track compliance with the requirements of this approval. The Compliance Tracking Program must be submitted to the Secretary for approval prior to the commencement of construction and operate for a minimum of 24 months following commencement of operation, subject to the Secretary's review of the outcomes of the Independent Environmental Audit Report required by condition E46. The operation of the program may be extended if the Secretary determines that there has been unsatisfactory compliance.</p> <p>The Program shall include, but not necessarily be limited to:</p>	Yes	Yes	Pre-Construction Construction Operation	Ongoing	Yes	16/03/2016	07/04/2016	18/04/2016	WCXM4 Co; CSJ; RMS	Open	<p>Details of the ongoing processes which are being implemented to assess compliance with the MCoA and revised environmental management measures (REMMs) are provided in the CSJ Compliance Tracking Program (CTP – M4E-LSJ-PR-00-000-001046), which was approved by DP&amp;E on 18 April 2016.</p> <p>There have been no incidents of non-conformances against the MCoA, or REMMs as listed in the CTP for the construction period to which this QCCR applies.</p>





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(a)	provision for the notification of the Secretary prior to the commencement of construction and prior to the commencement of operation of the SSI (including prior to each stage, where works are being staged);	Yes	Yes	Pre-Construction	22/04/2016 & 10/05/2016	Yes	22/04/2016 & 10/05/2016	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	A letter to notify of the commencement of Stage 1 construction, under the definition provided in the planning approval was provided to DP&E on 22 April 2016. A letter to notify of the commencement of Stage 2 construction, was provided to DP&E on 10 May 2016
	(b)	provision for periodic review of the compliance status of the SSI against the requirements of this approval and the environmental management measures committed to in the document referred to in condition A2(c);	Yes	Yes	Construction Operation	Ongoing	No	Quarterly starting end of First quarter after construction commencement.	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	Review of the compliance status has been undertaken and reported according to the timeframes included in Section 2.3 of this QCCR.
	(c)	provision for periodic reporting of compliance status to the Secretary, including but not limited to – i. a Pre-Construction Compliance Report prior to the commencement of construction, ii. quarterly Construction Compliance Reports, for the duration of construction, and/ iii. a Pre-Operation Compliance Report prior to the commencement of operation;	Yes	Yes	i. Pre-Construction ii. Construction iii. Pre-Operation	i. 11/04/2016 ii. Date of submission for this document and ongoing iii. TBC	No.	i. 11/04/2016 ii. Quarterly starting end of First quarter after construction commencement. iii. Prior to commencement of operation.	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	i. Pre-construction compliance details were contained in the Pre-Construction Compliance Report (PCCR) – Stage 1 submitted to DP&E on 11 and 22 April 2016 fulfilling the requirements of A14(c)(i) for Stage 1 works and the Pre-Construction Compliance Report (PCCR) – Stage 2 submitted to DP&E on 10 May 2016 fulfilling the requirements of A14(c)(i) for Stage 2 works. ii. Quarterly review of compliance will be undertaken (this report) and reported according to the timeframes included in Section 2.3 of this QCCR. iii. A pre-operation review will be undertaken and reported according to the timeframes included in Section 2.3 of this QCCR.
	(d)	a program for independent environmental auditing in accordance with AS/NZS ISO 19011:2014 - Guidelines for Auditing Management Systems;	Yes	Yes	Pre-Construction	16/03/2016	Yes	16/03/2016	07/04/2016	18/04/2016	WCXM4 Co; CSJ; RMS	Open	Auditing will be undertaken in accordance with Section 2.4 Environmental Auditing of this QCCR, which is consistent with the CTP.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(e)	mechanisms for recording environmental incidents during construction and actions taken in response to those incidents;	Yes	Yes	Pre-Construction	16/03/2016	Yes	16/03/2016	07/04/2016	18/04/2016	WCXM4 Co; CSJ; RMS	Open	The CTP discusses incident management and recording in Section 2.5. During the reporting period there were eleven environmental incidents, relating to minor spills onsite and out of hours works. These incidents were notified internally, in accordance with the CTP and CEMP, with no need for notification to the EPA, Fire and Rescue NSW, SafeWork NSW or council.
	(f)	provision for reporting environmental incidents to the Secretary during construction, in accordance with conditions A15 and A16;	Yes	Yes	Pre-Construction	16/03/2016	Yes	16/03/2016	07/04/2016	18/04/2016	WCXM4 Co; CSJ; RMS	Open	The CTP discusses incident management and reporting in Section 2.. During the reporting period no incident occur which required reporting to the Secretary.
	(g)	procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management; and	Yes	Yes	Pre-Construction	16/03/2016	Yes	16/03/2016	07/04/2016	18/04/2016	WCXM4 Co; CSJ; RMS	Open	The CTP discusses management of non-conformances in Section 2.6. During the reporting period there were two environmental incidents, relating to out of hours works. Following on from these incidents the out of hours works permitting system was reviewed to include time for demobilisation and the out of hours works procedure was discussed with the relevant team onsite.
	(h)	provision for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.	Yes	Yes	Pre-Construction	16/03/2016	Yes	16/03/2016	07/04/2016	18/04/2016	WCXM4 Co; CSJ; RMS	Open	The CTP discusses training and awareness in Section 2.7. During the reporting period all personnel who completed work onsite were required to complete the project induction and area inductions which include a summary of environmental requirements onsite. Regular toolbox talks were also completed with site teams on environmental topics including noise, water management, unexpected contaminated finds and parking.
<b>INCIDENT REPORTING</b>													
A15		The Proponent shall notify the EPA in relation to any pollution incident in carrying out the SSI as required by the <i>Protection of the Environment (Operations) Act 1997</i> . The	Yes	Yes	Pre-Construction Construction Operation	N/A	No	N/A	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	No pollution incidents occurred during the construction reporting period to which this QCCR applies.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		proponent shall provide the Secretary with a record of any such notification.											Where required in accordance with the EPL (#20734), Pollution Incident Response Management Plan (M4E-ES-SDY-PWD-00574) and the POEO Act, notification to the EPA will be undertaken for any non-conformances with the conditions of the EPL and pollution incidents. The Secretary will also be provided with a record of any such notifications, as detailed in Section 7 of the project CEMP.
A16		The proponent shall notify the Secretary (using the contact name and phone number notified by the Department from time to time) of any incident (other than those relating to the <i>Protection of the Environment (Operations) Act 1997</i> ) with actual or potential significant off-site impacts on people or the biophysical environment within 24 hours of becoming aware of the incident on weekdays, or the following business day on weekends, public holidays and site shutdown. The Proponent shall provide full written details of the incident to the Secretary within seven days of the date on which the incident occurred.	Yes	Yes	Pre-Construction Construction Operation	N/A	No	N/A	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	No incidents occurred which resulted in actual or potential significant off site impacts, during the construction reporting period to which this QCCR applies. The Secretary will be notified of any incident (other than those relating to the POEO Act) with actual or potential significant off-site impacts on people or the biophysical environment immediately (on weekdays, or by the following business day for weekends, public holidays and site shutdown periods) of becoming aware of the incident. Full written details of the incident will be provided to the Secretary within seven days of the date on which the incident occurred. CSJ will provide the Secretary with records of any notification of incidents to the EPA. (See Section 7 of the project CEMP).
A17		The Proponent shall meet the requirements of the Secretary or relevant public authority (as determined by the Secretary) to address the cause or impact of any incident, as it relates to this approval.	Yes	Yes	Pre-Construction Construction Operation	N/A	No	N/A	N/A	N/A	WCXM4 Co; CSJ; RMS	Open	No notifiable incidents occurred during the construction reporting period to which this QCCR applies. Incidents will be investigated as detailed in Section 7 of the project CEMP, and where requested by the Secretary or relevant public authority additional requirements will be incorporated into the investigation.
PART B													
ENVIRONMENTAL PERFORMANCE													
AIR QUALITY													
Physical Requirements													



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
B1		The ventilation outlets shall be constructed at the locations specified in Appendices A and B.	No	Yes	Construction.	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	The ventilation outlets are currently being designed to meet the locations identified in Appendix A and B. Detailed design of the ventilation system is being undertaken between February and September 2016. Current design drawings show the ventilation outlets at the locations specified in the Planning Approval. Commencement of construction of the ventilation outlets is expected to commence in August 2017.
B2		Unless otherwise approved by the Secretary, the ventilation outlets shall be constructed at an approximate height of:  (a) the western ventilation outlet: RL 42.5 metres (AHD) being a height of 38.1 metres above the ground as measured from Underwood Road in the location shown as C in Appendix A; and  (b) the eastern ventilation outlet: RL 42 metres (AHD) being a height of 25.0 metres above the ground as measured from the locations shown as A and B in Appendix B.	No	Yes	Construction.	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	The ventilation outlets are currently being designed to meet the locations identified in Appendix A and B. Detailed design of the ventilation system is being undertaken between February and September 2016. Commencement of construction of the ventilation outlets is expected to commence in August 2017.
B3		The ventilation outlet exit plane must have a minimum exit velocity or variable velocity, to be determined in the Tunnel Ventilation, Incident Response and Traffic Management Systems Integration Protocol required under condition B7, but only if an equivalent or better environmental outcome than presented in the Proponent's most up to date air assessment can be demonstrated to the Secretary, in consultation with the EPA.	No	Yes	Detailed design.	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	This relates to the detailed design phase of the ventilation system. Detailed design of the ventilation system is being undertaken between February and September 2016. Ambient modelling is currently being undertaken by CSJ with the Substantial Detailed Design completed. From this, a minimum ventilation velocity will be determined for the required traffic scenarios, with the Final Design planned to be completed before the end of 2016. The minimum exit velocity or variable velocity will be determined in the Tunnel Ventilation, Incident Response and Traffic Management Systems Integration Protocol, which is a pre-operation requirement.
B4		The tunnel ventilation system must be designed, constructed and operated to	No	Yes	Construction.	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		release emissions from the ventilation outlets only, and to avoid emissions from the portals and/or the tunnel support facility at Cintra Park, except for emergency smoke management purposes in the event of a fire in the tunnel and periodic testing of the system as defined in the Operation Environmental Management Plan required under condition E26.											between February and September 2016. The detailed design currently includes emissions from the ventilation outlets only, avoiding emissions from the portals during non-emergency scenarios. Emissions from the emergency smoke outlet at Cintra Park would only during emergency scenarios and commissioning / testing of the system.
B5		The tunnel must be designed and constructed so as to allow for future modification of the ventilation system if required. The Proponent must demonstrate, to the Secretary, how this will be allowed for prior to finalising detailed design.	No	Yes	Construction.	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken between February and September 2016. The detailed design currently allows for future modification of the ventilation system if required.
B6		The Proponent must install ventilation outlet emission sampling points and associated safe access thereto, during construction of the ventilation outlet. The sampling points must be designed and located in accordance with the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> (EPA, 2007, or as updated), or an equivalent methodology approved by the Secretary in consultation with the EPA.	No	Yes	Construction.	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken between February and September 2016, and will include design of air quality monitoring stations when finalised.
B7		Prior to operation, the Proponent must prepare and implement a Tunnel Ventilation, Incident Response and Traffic Management Systems Integration Protocol in consultation with the Transport Management Centre, for the approval of the Secretary. The Tunnel Ventilation, Incident Response and Traffic Management Systems Integration Protocol must be reviewed by a suitably qualified and experienced independent ventilation specialist to confirm that, before the tunnel is open to traffic, the ventilation/traffic management systems would operate together to ensure that the conditions of this approval are met. The Protocol should include a commissioning procedure to be completed before the tunnel is opened to traffic.  <i>Note:</i> <i>Tunnel ventilation design and operation, incident response triggers and procedures, and traffic management, should be fully integrated in accordance with the primary</i>	No	Yes	Prior to operation.	TBC	Yes	TBC	TBC	TBC	CSJ	Not yet triggered	This relates to pre-operation phase and will be reported upon in future QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<i>objective of ensuring the safety of motorists in the tunnel.</i>											
B8		<p>Prior to operation, the Proponent must install signage at each tunnel entrance and at regular intervals throughout the tunnel that instructs tunnel users to close windows and turn on recirculated air.</p> <p>Relevant information about this instruction is to be provided on a website, operated by the Proponent, which is maintained throughout operation of the SSI.</p>	No	Yes	Prior to operation.	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	This relates to pre-operation phase and will be installed in early 2019.
Air Quality Community Consultative Committee													
B9	(a)	<p>Prior to finalising the detailed design of the SSI and the establishment of the ambient air quality monitoring stations required under condition E8 the Proponent must establish an Air Quality Community Consultative Committee (AQCCC) to provide input prior to and during the operation of the SSI. The AQCCC must:</p> <p>Be comprised of:</p> <ol style="list-style-type: none"> <li>i. two representatives from the Proponent and tunnel operator,</li> <li>ii. one representative from each of the relevant councils, whose attendance is only required when considering matters relevant to their respective local government area,</li> <li>iii. three representatives from the local community adjacent to the eastern ventilation facility or three representatives from the local community adjacent to the western ventilation facility whose attendance is only required when considering matters relevant to their respective local area, and whose appointment has been approved by an expression of interest process conducted by the Proponent in consultation with the Secretary, and</li> <li>iv. a Chair who is an independent party put forward by the Proponent and approved by the Secretary;</li> </ol>	No	Yes	During design.	TBC	Yes	TBC	TBC	TBC	WCXM4 Co; RMS; CSJ	Not yet triggered	<p>This relates to detailed design phase and will be reported upon in subsequent quarterly reports.</p> <p>Ambient air modelling is currently being undertaken by CSJ, with the Final Design report due to be complete by the end of 2016.</p>
	(b)	meet at least four times a year, or as otherwise agreed by the chair and the Secretary;											



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(c)	review and provide advice on the location of the air quality monitoring stations required under condition E8, operation environmental management plans and other operation stage documents, compliance tracking reporting, audit reports, or complaints as they relate to air quality; and											
	(d)	provide advice on the dissemination of monitoring results and other information on air quality issues.  The AQCCC must be operated for a period of two years from the commencement of operation, or as otherwise approved or directed by the Secretary, in consultation with the Chair.											
SOIL, WATER QUALITY AND HYDROLOGY													
B10		Except as may be provided by an EPL, the SSI must be constructed and operated to comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> , which prohibits the pollution of waters.	Yes	Yes	Construction.	Ongoing	No	N/A	N/A	N/A	CSJ	Open	The Project has obtained an EPL (#20374) and all discharges to waterways, including those from construction water treatment plants, have been in accordance with the CSJ Dewatering and Discharge Procedure to meet the limits set in the EPL. Monitoring data from all discharges is included on the project website. Notification to the EPA will be undertaken in the event of a pollution incident as required by the EPL.  This is discussed in the CEMP at Section 3.3 - Approvals, permits and licences and Section 7 - Notification to EPA and other agencies, and the Project SWMP.
B11		All activities taking place in, on or under waterfront land, as defined in the <i>Water Management Act 2000</i> should be conducted generally in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (DPI, 2012)</i> .	Yes	Yes	Construction.	Ongoing	No	N/A	N/A	N/A	CSJ	Open	This condition has been included in the Project FFMP and SWMP to ensure that it is addressed during project delivery. Construction activities have been completed on waterfront land near Saleyards Creek and Iron Cove Canal. Compliance of these works against the FFMP and SWMP has been inspected through weekly environmental inspections and fortnightly inspections by the project Environmental Representative (ER).



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
B12		Watercourse crossings, including temporary work platforms, waterway crossings and/or coffer dams, where feasible and reasonable, must be consistent with the <i>NSW Guidelines for Controlled Activities Watercourse Crossings</i> (DPI, 2012), <i>Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings</i> (Fairfull and Witheridge, 2003), <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (NSW Fisheries February, 2004), and <i>Policy and Guidelines for Fish Habitat Conservation and Management</i> (DPI Fisheries, 2013). Where multiple cell culverts are proposed for crossings of fish habitat streams, at least one cell must be provided for fish passage, with an invert or bed level that mimics watercourse flows.	Yes	Yes	Construction.	Ongoing	No	N/A	N/A	N/A	CSJ	Not yet triggered	No watercourse crossings have been commenced during the construction reporting period to which this QCCR applies. This condition will be reported upon in the QCCR once the condition is triggered. This condition has been included in the Project SWMP to ensure that it is addressed during project delivery.
B13		The Proponent must take all feasible and reasonable measures to limit operational groundwater inflows into each tunnel to no greater than one litre per second across any given kilometre.	Yes	Yes	Detailed Design; Operation	Ongoing	No	N/A	N/A	N/A	CSJ; WCXM4 Co; RMS	Open	The project mainline tunnel design includes water-resisting treatment types which are to be installed during construction of the tunnel to meet this condition of approval. Construction of the driven tunnel commenced at Cintra Park on 16 July 2016.
Flood Mitigation													
B14		A Flood Mitigation Strategy must be prepared and implemented in respect of the flood prone land and overland flow paths for the waterways and catchments in the vicinity of the SSI. The Flood Mitigation Strategy must be designed to ensure that the SSI, where feasible and reasonable, does not worsen existing flooding characteristics in the vicinity of the SSI during construction and operation. The Flood Mitigation Strategy must include but not be limited to: <ul style="list-style-type: none"> <li>(a) the identification of flood risks to the SSI and adjoining areas, including further modelling and the consideration of local drainage catchment assessments, and climate change implications on rainfall and drainage characteristics. This must consider blockages of waterway structures from floating debris in its flood level modelling;</li> <li>(b) the identification of design and mitigation measures that would be implemented to protect proposed operations and not worsen existing flooding characteristics within and in the vicinity of the SSI boundary during</li> </ul>	Yes	Yes	Pre-Construction	Ongoing	No	See comments column.	N/A	N/A	CSJ	Open	A deferred submission timeframe for the Flood Mitigation Strategy was requested from DP&E on 4 May 2016, with approval of the approach received on 20 May 2016. During the reporting period, which applies to this QCCR, Flood Mitigation Strategies were developed for the following and submitted to DP&E: <ul style="list-style-type: none"> <li>• Homebush Bay Drive Temporary Works – submitted on 21 April 2016,</li> <li>• Concord Road Temporary Works – submitted on 4 May 2016,</li> <li>• Wattle Street Temporary Works – submitted on 15 May 2016, and</li> </ul>





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence	
			Stage 1	Stage 2										
	(c)	<p>construction and operation, including soil erosion and scouring;</p> <p>consideration of limiting flooding characteristics to the following levels:</p> <ul style="list-style-type: none"> <li>i. a maximum increase in inundation time of one hour in a 1 in 100 year ARI rainfall event;</li> <li>ii. a maximum increase of 10 mm in inundation at properties where floor levels are currently exceeded in a 1 in 100 year ARI rainfall event;</li> <li>iii. a maximum increase of 50 mm in inundation at properties where floor levels would not be exceeded in a 1 in 100 year ARI rainfall event; and</li> <li>iv. no inundation of floor levels which are currently not inundated in a 1 in 100 year ARI rainfall event,</li> </ul> <p>or else provide alternative flood mitigation solutions consistent with the intent of these limits;</p>											<ul style="list-style-type: none"> <li>• Parramatta Road Temporary Works – submitted on 7 June 2016.</li> </ul> <p>The Flood Mitigation Strategy for the operational project has been provided to relevant councils, OEH and Sydney Water for consultation. In accordance with the deferred approval, the strategy will be provided to DP&amp;E on 22 August 2016.</p>	
	(d)	the processes and actions committed to in the mitigation measures referred to in conditions A2(b) and A2(c);												
	(e)	the identification of measures to be implemented to minimise scour and dissipate energy at locations where flood velocities are predicted to increase as a result of the SSI and cause localised soil erosion or scour;												
	(f)	identification of drainage system upgrades including those upgrades considered as mitigation measures and identified during the processes outlined in condition B20; and												
	(g)	<p>identification of the timing and maintenance responsibility of any necessary works.</p> <p>The Flood Mitigation Strategy must be prepared by a suitably qualified and experienced person in consultation with directly affected landowners, Sydney Water, OEH, and relevant councils.</p> <p>The Flood Mitigation Strategy must be peer reviewed and confirmed as meeting the requirements of this condition by a suitably qualified and experienced independent hydrological engineer. The Flood Mitigation Strategy must be submitted to the Secretary and the relevant council prior to the commencement of construction in the vicinity of the flood prone land and overland flow</p>												



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		paths for the waterways and catchments in the vicinity of the SSI, or as otherwise agreed by the Secretary.											
B15		All relevant information must be provided to the relevant council and/or NSW State Emergency Service, to assist in the preparation of any new or necessary update(s) to the relevant plans and documents in relation to flooding, to reflect changes in flooding levels, flows and characteristics as a result of the SSI.	Yes	Yes	Construction.	To be provided after completion of Flood Mitigation Strategy	No	N/A	N/A	N/A	CSJ	Not yet triggered	During the reporting period, which applies to this QCCR, the following Flood Mitigation Strategies were provided to the relevant council: <ul style="list-style-type: none"> <li>• Homebush Bay Drive Temporary Works – to Strathfield Council,</li> <li>• Concord Road Temporary Works – to Strathfield Council and Canada Bay Council,</li> <li>• Wattle Street Temporary Works – to Inner West Council, and</li> <li>• Parramatta Road Temporary Works – to Inner West Council.</li> </ul>
B16		Unless otherwise agreed by the Secretary, a Flood Review Report(s) must be prepared after the first defined flood event for any of the following flood magnitudes – the 5 year ARI event, 20 year ARI event, 100 year ARI event and probable maximum flood - to assess the actual flood impact against those predicted in Appendix Q of the document referred to in condition A2(b). The Flood Review Report(s) must be prepared by an appropriately qualified person(s) and include: <p>(a) identification of the properties and infrastructure affected by flooding during the reportable event;</p> <p>(b) a comparison of the actual extent, level, velocity and duration of the flooding event against the impacts predicted in Appendix Q of the document referred to in condition A2(b), or as otherwise altered by the Flood Mitigation Strategy; and</p> <p>(c) where the actual extent and level of flooding exceeds the predicted level with the consequent effect of adversely impacting of property(ies), structures and infrastructure, identification of the measures to be implemented to reduce future impacts of flooding related to the SSI works including the timing and responsibilities for implementation.</p>	Yes	Yes	After first flood.	N/A	No	N/A	N/A	N/A	CSJ;	Not yet triggered	This condition is applicable to the monitoring of flooding impacts post-construction, therefore compliance will be reported on in the Pre-Operation Compliance Report.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>Flood mitigation measures must be developed in consultation with the affected property/structure/infrastructure owners, OEH, UrbanGrowth NSW and the relevant council.</p> <p>A copy of the Flood Mitigation Report(s) must be submitted to the Secretary, UrbanGrowth NSW and relevant council(s).</p>											
Groundwater													
B17		<p>The Proponent must undertake further modelling of groundwater drawdown, tunnel inflows and saline water migration prior to finalising the design of the tunnel. The scope of modelling must be developed in consultation with DPI (Water) and include the results of all groundwater monitoring, including additional baseline data collected post exhibition of the EIS. The results of the modelling must be documented in a Groundwater Modelling Report. The Groundwater Modelling Report must be finalised in accordance with the <i>Australian Groundwater Modelling Guidelines</i> (National Water Commission, 2012) and prepared in consultation with DPI (Water). The Groundwater Modelling Report must include, but not be limited to:</p> <p>(a) justification for model and layer choice;</p> <p>(b) specification of matrix hydraulic and storage parameters for each layer;</p> <p>(c) statistical evaluation of the model's calibration;</p> <p>(d) details of the groundwater monitoring data inputs (levels and quality);</p> <p>(e) assessment of impacts of groundwater drawdown, taking into consideration the <i>NSW Aquifer Interference Policy</i> (DPI, 2012), including potential impacts on the Mason Park and Homebush Bay saltmarsh/wetlands and licensed bores potentially affected by the SSI;</p> <p>(f) a comparison of the results with the modelling results detailed in the document referred to in condition A2(b); and</p> <p>(g) documentation of any additional measures that would be implemented to manage and/or mitigate groundwater impacts not</p>	Yes	Yes	Prior to finalisation of tunnel design.	TBC	No	N/A	N/A	N/A	CSJ	Open	<p>CSJ provided a scoping document on the project groundwater modelling to DPI (Water) on 31 May 2016, requesting their feedback and comments. A response was provided on 17 June 2016 and has been considered during the drafting of the Groundwater Modelling Report during the reporting period.</p> <p>The Report will be provided to DPI (Water) for consultation on 25 July 2016, and will be submitted to DP&amp;E prior to the finalisation of the design of the tunnel.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>previously identified or identified but at a smaller scale.</p> <p>A copy of the Groundwater Modelling Report must be submitted to the Secretary prior to finalising the tunnel design. The Groundwater Modelling Report must include details of consultation with DPI (Water).</p>											
Water Quality Plan and Monitoring Program													
B18		<p>A Water Quality Plan and Monitoring Program must be prepared and implemented to monitor and avoid or mitigate impacts on surface and groundwater quality and resources, during construction and operation. The Water Quality Plan and Monitoring Program must be developed in consultation with the EPA, DPI (Water), Sydney Water and relevant councils, and must include, but not be limited to:</p> <p>(a) identification of works and activities during construction and operation of the SSI, including tunnel discharge, runoff, emergencies and spill events, that have the potential to impact on groundwater quality, levels or potentiometric pressure (in confined aquifers), and surface water quality of potentially affected watercourses and riparian land;</p> <p>(b) a risk management framework for evaluation of the risks to groundwater and surface water resources and dependent ecosystems as a result of groundwater inflows to the tunnels, including definition of impacts that trigger contingency and ameliorative measures;</p> <p>(c) the identification of environmental management measures relating to surface waters and groundwater during construction and operation, including water treatment, erosion and sediment control and stormwater management measures consistent with Water Sensitive Urban Design measures, where relevant, and consistent with the measures detailed in the documents listed in conditions A2(b) and A2(c);</p> <p>(d) details of construction water treatment plants and the operational water treatment plant at Cintra Park, including treatment processes, discharge water quality criteria (taking into consideration any water uses and proposed rehabilitation measures downstream of the</p>	Yes	Yes	Prior to construction.	09/03/2016	Yes	04/04/2016	TBC	TBC	CSJ	Open	<p>The Water Quality Monitoring Program (WQMP) has been prepared to meet this condition and forms a sub-plan to the Project Soil and Water Management Plan. The WQMP has been reviewed by EPA, DPI (Water), Sydney Water and relevant councils with comments received and addressed by CSJ. The WQMP was approved by DP&amp;E on 6 May 2016.</p> <p>Approval of the WQMP was required to commence Stage 2 works as identified in the Staging Report submitted to DP&amp;E on 21 April 2016.</p> <p>In accordance with the WQMP surface and groundwater monitoring has been completed across the project.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(e)	discharge locations), discharge locations and rates (and justification for their location), treatment capacity, and any proposed on-site storage of flows;  commitment to designing discharge points into watercourses affected by the SSI to emulate a natural stream system, where feasible and reasonable, or where emulation cannot be achieved, adequate scour protection measures are to be implemented;											
	(f)	consideration of any naturalisation or rehabilitation programs occurring upstream or downstream of waterways or drainage lines intersected by the SSI;											
	(g)	the presentation of water quality objectives, standards and parameters against which any changes to water quality will be assessed, having regard to the <i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i> (Agriculture and Resource Management Council of Australia and New Zealand and the Australian and New Zealand Environment and Conservation Council, 2000), and Strathfield Council's pollutant reduction targets for St Luke's Canal. Where alternate guidelines are used to establish water quality goals, justification for this must be provided;											
	(h)	representative background monitoring data (including but not limited to representative data collected by the relevant councils, where readily available) for surface and groundwater quality, levels and potentiometric pressures (in confined aquifers), to establish baseline water conditions prior to the commencement of construction;											
	(i)	identification of construction and operational phase surface water and groundwater monitoring locations including watercourses, waterbodies and wetlands (including Mason Park and Homebush Bay saltmarsh/wetlands) which are representative of the potential extent of impacts from the SSI, including the relevant analytes and frequency of monitoring;											
	(j)	details on the condition and status of licensed bores likely to be impacted by the SSI;											



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(k)	commitment to a minimum monitoring period of three years following the completion of construction or until the affected waterways and/or groundwater resources are certified by a suitably qualified and experienced independent expert as being rehabilitated to an acceptable condition, unless otherwise approved or directed by the Secretary. The monitoring must also confirm the establishment of operational water control measures (such as sedimentation basins and vegetation swales);											
	(l)	contingency and ameliorative measures in the event that adverse impacts to water quality or groundwater flows, levels or potentiometric pressures (in confined aquifers) are identified, with reference to the impact triggers defined in accordance with B18(b);											
	(m)	identification of and commitment to 'make good' provisions for groundwater users to be implemented in the event of a decline in water supply levels from existing bores associated with groundwater changes from either construction and/or ongoing operational dewatering caused by the SSI;											
	(n)	procedures for monitoring and annual reporting of extracted groundwater volumes to DPI (Water) for a minimum monitoring period of three years following completion of construction, unless otherwise approved or directed by the Secretary; and											
	(o)	<p>procedures for annual reporting of the monitoring results to the Secretary, EPA, and the relevant councils;</p> <p>The Water Quality Plan and Monitoring Program must be submitted to the Secretary for approval prior to the commencement of construction of the SSI, unless otherwise agreed by the Secretary. A copy of the Water Quality Plan and Monitoring Program must be submitted to the EPA, DPI (Water), Sydney Water and relevant councils prior to its implementation.</p> <p>Nothing in this condition prevents the Proponent from preparing separate Water Quality and Monitoring Programs for the construction and operational stages of the SSI. Where a separate Water Quality and Monitoring Program is prepared for the operation of the SSI, this must be submitted</p>											



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		to the Secretary for approval at least six months prior to the commencement of operation of the SSI.											
B19		As part of the Water Quality Plan and Monitoring Program required by condition B18, the Proponent must provide details of how the potential impact of discharges on receiving waters would be avoided or minimised, including, but not be limited to:	Yes	Yes	Prior to construction.	09/03/2016	Yes	04/04/2016	TBC	TBC	CSJ	Open	<p>The Water Quality Monitoring Program (WQMP) has been prepared to meet this condition and forms a sub-plan to the Project Soil and Water Management Plan. The WQMP has been reviewed by EPA, DPI (Water), Sydney Water and relevant councils with comments received and addressed by CSJ. The WQMP was approved by DP&amp;E on 6 May 2016.</p> <p>Approval of the WQMP was required to commence Stage 2 works as identified in the Staging Report submitted to DP&amp;E on 21 April 2016.</p> <p>In accordance with the WQMP surface and groundwater monitoring has been completed across the project.</p>
	(a)	characterisation of current water quality in any receiving waters that could be affected by the SSI;											
	(b)	a statement of the ambient water quality objectives and the environmental values for the receiving waters;											
	(c)	a statement of the indicators and associated trigger values or criteria for the identified environmental values;											
	(d)	details of the significance of any identified impacts on surface waters including consideration of the relevant ambient water quality outcomes;											
	(e)	demonstration of how the SSI will be designed and operated to protect existing water quality and, where feasible and reasonable, enhance water quality over time; and											
	(f)	demonstration that any groundwater discharge water quality is consistent with supporting a slightly to moderately disturbed level of aquatic ecosystem protection for receiving waters as defined in the <i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i> (Agriculture and Resource Management Council of Australia and New Zealand and the Australian and New Zealand Environment and Conservation Council, 2000).											



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
Stormwater Drainage													
B20		The Proponent must undertake further hydrological and hydraulic modelling based on the detailed design of the SSI to determine the ability of the receiving drainage systems to effectively convey pavement drainage from the SSI. The modelling must be undertaken in consultation with the relevant council(s) and the outcomes documented in a Stormwater Drainage Report. The Stormwater Drainage Report must:	Yes	Yes	Pre-Construction	See comments column.	No	See comments column.	N/A	N/A	CSJ	Open	<p>A deferred submission timeframe was requested from DP&amp;E on 4 May and 14 June 2016, with approval of the approach received on 17 June 2016.</p> <p>During the reporting period, which applies to this QCCR, Stormwater Drainage Reports were developed for the following and submitted to DP&amp;E:</p> <ul style="list-style-type: none"> <li>• Homebush Bay Drive – Temporary Works – 9 June 2016,</li> <li>• Pomeroy Street – Temporary Works – 9 June 2016,</li> <li>• Underwood Road – Temporary Works – 9 June 2016,</li> <li>• Cintra Park – Temporary Works – 9 June 2016</li> <li>• Northcote Street – Temporary Works – 9 June 2016,</li> <li>• Concord Road – Temporary Works – 7 July 2016,</li> <li>• Powells Creek – Temporary Works – 7 July 2016,</li> <li>• Wattle Street – Temporary Works – 19 July 2016,</li> <li>• Homebush Bay Drive – Permanent Works – 3 August 2016, Parramatta Road – Temporary Works – 4 August 2016,</li> <li>• Wattle Street and Parramatta Road – Permanent Works – 4 August 2016, and</li> <li>• Concord Road – Permanent Works – 4 August 2016</li> </ul>
	(a)	confirm the location, size and capacity of all drainage basin structures associated with the operation of the SSI;											
	(b)	assess the potential impacts of pavement drainage discharges from the SSI drainage systems on the receiving environment including the hydrology (water quality and quantity) of receiving waterways, riparian vegetation, aquatic ecology and property;											
	(c)	identify all feasible and reasonable mitigation measures to be implemented where pavement drainage from the SSI drainage systems is predicted to adversely impact on the receiving environment;											
	(d)	where pavement drainage from the SSI flows to a council stormwater drainage system, confirm the location of the cross drainage point and, where available, use drainage information obtained from the relevant council, to –											
		i. confirm the capacity of the council's drainage system and its ability to receive and convey the flows,											
		ii. identify any consequent upstream and downstream impacts on cross drainage infrastructure capacity,											
		iii. assess the impacts on the receiving environment at the final outflow point resulting from any additional flow volume (including, but not limited to, scour, flooding, water quality impacts, and impacts on riparian vegetation, aquatic ecology and property), and											
		iv. identify all feasible and reasonable mitigation measures to be implemented where increased flows through cross drainage systems											





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(e)	adversely impact on council drainage infrastructure and the receiving environment; and  set out a clear time frame for the implementation of mitigation measures.  The Stormwater Drainage Report must be submitted to the Secretary at least four weeks prior to the commencement of any new drainage works, modifications to existing drainage works, or construction of hard surfaces that would result in runoff to existing stormwater drainage systems, unless otherwise agreed by the Secretary.											
B21	(a) (b) (c)	The Proponent must prepare a Water Reuse Strategy which sets out feasible and reasonable options for the reuse of collected stormwater and groundwater during construction and operation of the SSI. The Water Reuse Strategy must include, but not be limited to:  evaluation of all feasible and reasonable reuse options;  details on the preferred reuse option(s), including volumes of water to be reuse, proposed reuse locations and/or activities, proposed treatment (if required), and any additional licences or approvals that may be required; and  a time frame for the implementation of the preferred reuse option(s).  Justification must be provided in the event that it is concluded that no feasible or reasonable reuse options prevail.  A copy of the Water Reuse Strategy must be submitted to the Secretary for approval prior to commencement of tunnelling works.	No	Yes	Prior to tunnelling works.	24/06/2016	Yes	01/06/2016	20/06/2016	24/06/2016	CSJ	Open	A Water Reuse Strategy (M4E-PM-PLN-PWD-00921) was approved by DP&E on 24 June 2016 and fulfils this condition. No conditions or exclusions were noted in the approval letter.  Following rainfall during the reporting period, surface water was captured within sediment basins and was utilised for dust suppression in accordance with the Water Reuse Strategy. In June and July more than 80kL of water was reused on the project. Tunnelling also commenced during the reporting period, with Cintra Park having the only commissioned water treatment in operation. Initial water quality samples have been taken from the water treatment plant to inform consultation with Canada Bay Council about potential water reuse options.
B22		Prior to the commencement of site preparation and excavation activities, or as otherwise agreed by the Secretary, in areas identified as having a moderate to high risk of contamination, a Soil Contamination Report must be prepared by a suitably qualified person(s) in accordance with the requirements of the <i>Contaminated Land Management Act 1997</i> and associated guidelines, detailing the outcomes of Phase 2 contamination investigations within these areas. The Soil Contamination Report must detail, where relevant, whether the soil is	Yes	Yes	Pre-construction	Ongoing	No	TBC	N/A	N/A	CSJ	Open	Contamination is addressed in the DP&E approved Contaminated Land Management Plan, a sub-plan to the SWMP (M4E-ES-PLN-PWD-00242) (23 March 2016) included as Annexure B.  Phase 2 contamination assessments are currently being undertaken on behalf of CSJ by a suitably qualified and experienced environmental consultant in those areas identified as having a



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>suitable (for the intended land use) or can be made suitable through remediation and/or outline the potential contamination risks from the SSI to human health and receiving waterways.</p> <p>For land to be disturbed by the SSI, where the investigations identify that the site is suitable for the intended operations and that there is no need for a specific remediation strategy, measures to identify, handle and manage potential contaminated soils, materials and groundwater must be identified in the Soil Contamination Report and incorporated into the Construction Environmental Management Plan. Should a remediation strategy be required, the Soil Contamination Report must include a Remediation Plan for addressing the disturbed area, and how the environmental and human health risks will be managed during the disturbance, remediation and/or removal of contaminated soil or groundwater.</p> <p>If remediation is required, the Soil Contamination Report must be accompanied by a Site Audit Statement(s), prepared by an accredited Site Auditor under the <i>Contaminated Land Management Act 1997</i>, verifying that the disturbed area has been or can be remediated to a standard consistent with the intended land use. Where land is remediated, a final Site Audit Statement(s) must be prepared by an accredited Site Auditor, certifying that the contaminated disturbed areas have been remediated to a standard consistent with the intended land use. The final Site Audit Statement must be submitted to the Secretary and relevant councils prior to operation of the SSI, unless otherwise agreed to by the Secretary.</p>											<p>moderate to high risk of contamination.</p> <p>The assessments have been undertaken progressively and have occurred prior to the commencement of site preparation and excavation activities in that area.</p> <p>A Soil Contamination Report or technical memo has been prepared in accordance with the requirements of the <i>Contaminated Land Management Act 1997</i> and associated guidelines, detailing the outcomes of the Phase 2 contamination investigations. If required, remediation measures were also included in this technical memo.</p> <p>Upon completion of any remediation works undertaken for the project, a final Site Audit Statement will be issued by the site auditor to confirm the site is suitable for the proposed post-construction land use.</p>
HERITAGE													
B23		The Proponent must not destroy, modify or otherwise physically affect any heritage items, including human remains, outside of the SSI footprint. This approval does not allow the Proponent to harm, modify, or otherwise impact human remains uncovered during the construction and operation of the SSI.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>The Project will not impact any items outside of the SSI footprint. No heritage items have been impacted during the construction phase to which this QCCR applies.</p> <p>No accidental discoveries of human remains have occurred during the construction phase to which this QCCR applies. During the reporting period bones were discovered during demolition of a property in Haberfield. The</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													<p>Unexpected Heritage Finds Procedure was implemented, with the NSW Police notified and advising that the bones were not human remains, therefore the works could continue.</p> <p>The approved Construction Heritage Management Plan (21 July 2016) (M4E-ES-PLN-PWD-00238) addresses the procedures that need to be implemented in the case of the accidental discovery of any human remains during the construction and operation of the SSI,</p> <p>The HMP provides measures to ensure heritage items outside the SSI footprint are not impacted by the project. Site Environment Plans clearly show the limits of clearing, demolition and other construction impacts and any other heritage no-go zones within the project footprint. The HMP and Heritage Management Procedure provide guidance on construction works that may impact on known heritage and the management of unexpected finds will be guided by the Unexpected Heritage Finds Procedure.</p>
B24		<p>The Proponent must salvage items and materials from heritage items (excluding potential heritage items) as advised by an independent heritage consultant. How the items are reused in the project is to be detailed in the Urban Design and Landscape Plan required by condition B45.</p> <p>Any residual items and materials must be made available, through a process to be developed by the Proponent in consultation with the relevant council(s), to property owners within the locality or heritage conservation area from where the item or material originated.</p>	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>The approved Construction Heritage Management Plan (21 July 2016) (M4E-ES-PLN-PWD-00238) addresses this CoA at Section 5, Section 6 H17, Section 7.1 and Annexure A of that plan.</p> <p>The process for salvage of heritage items is outlined in the Heritage Management Procedure. Requirements have been determined based on inspections undertaken by the project heritage specialist (Section 5 and 7.1 of the HMP).</p> <p>The Heritage Salvage Report (available on the M4 East website) also summarises the salvage process, including identification of elements requiring salvage.</p> <p>To date, approximately 90% of identified items and materials</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													<p>have been salvaged from heritage properties within the project.</p> <p>Reuse of items within the project will be identified in the Urban Design and Landscape Plan. The HMP requires a process for local reuse of any residual items to be determined in consultation with the relevant councils. This process has been drafted and is currently undergoing consultation with relevant councils.</p>
B25		The Proponent must not demolish the dwellings located at 18, 20 and 22 Walker Avenue, Haberfield.	Yes	No	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>The Heritage Demolition Maps in Annexure E and the Heritage impact schedule in Annexure F of the approved Construction Heritage Management Plan (21 July 2016) (M4E-ES-PLN-PWD-00238) identify heritage items to be either fully or partially demolished for the project. The nominated dwellings are identified in the annexures and in the safeguards listed in the HMP to be retained.</p> <p>The Wattle Street ancillary facility site has been rearranged to accommodate the preservation of the buildings at 18, 20 and 22 Walker Avenue. The new layout was included in the Stage 2 Ancillary Facilities Management Plan which was approved by DP&amp;E on 13 May 2016.</p> <p>The properties will be separated from the ancillary facility through installation of fences and noise walls to ensure that the areas are delineated, and it is clear that the houses are not to be demolished.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
Non-Aboriginal Heritage Items and Conservations Areas													
B26		The Proponent must not destroy, modify or otherwise physically affect the buildings or land known as Yasmar Estate or Ashfield Park. Where visual impacts or other impacts to the setting of these heritage items are expected, these are to be mitigated through measures outlined within the Urban Design and Landscape Plan as required by condition B45.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	The approved project does not involve any works (establishment, ancillary or construction) that will impact the Yasmar Estate. Yasmar Estate and Ashfield Park have been identified on Site Environment Plans as heritage no-go zones to ensure no direct impacts on these items. Visual and other indirect impacts will be managed through the Urban Design and Landscape Plan, which is identified in the approved Construction Heritage Management Plan (21 July 2016) (M4E-ES-PLN-PWD-00238) at Section 6 of that plan. No impacts to Yasmar Estate or Ashfield Park have occurred during the reporting period to which this QCCR applies.
B27		Identified impacts to heritage items and heritage conservation areas must be minimised through both detailed design and construction. The measures for ensuring this are to be detailed in the Construction Heritage Management Plan required by condition D57(c).	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	The approved Construction Heritage Management Plan (M4E-ES-PLN-PWD-00238) (21 July 2016) addresses the requirements of this CoA within Sections 5 and 6. The HMP identifies the processes to be undertaken to ensure impacts to heritage are minimised. Section 5 of the HMP identifies the inspections and reporting requirements that will be required to inform heritage management for the project. Section 6 identifies the specific management measures to be implemented during construction to ensure compliance with project plans and heritage requirements. Activities undertaken during the reporting period to which this QCCR applies are outlined in Section 3.2. Heritage items and conservation areas are identified on Site Environmental Plans. Hold points released by WCXM4 Co exist for works in the vicinity of heritage items to minimise potential impacts to heritage items. At the time of reporting, archival recording has been completed



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													and salvage of heritage items is approximately 90% complete. No unapproved impacts to heritage items have occurred during the reporting period to which this QCCR applies.
B28		Any buildings or structures identified as potential heritage items in the documents listed in conditions A2(b) and A2(c) or identified during detailed design or construction of the SSI, must be dealt with as though they are a locally listed heritage item.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>The approved Construction Heritage Management Plan (M4E-ES-PLN-PWD-00238) (21 July 2016) addresses the requirements of this CoA within Section 6 of the plan.</p> <p>This requirement is addressed through the safeguards listed in Section 6 of the HMP and the Heritage Management Procedure and will be incorporated into the relevant management documentation.</p> <p>Potential heritage items have been treated as though they are locally listed heritage items.</p> <p>Heritage items (including potential items) are identified on Site Environmental Plans. Hold points released by WCXM4 Co exist for works in the vicinity of heritage items to minimise potential impacts to heritage items.</p> <p>At the time of reporting, archival recording has been completed and salvage of heritage items is approximately 90% complete.</p>
B29		Prior to conducting acoustic treatment at any heritage items in accordance with this approval, the Proponent must obtain and implement the advice of an appropriately qualified and experienced heritage expert to ensure such work is carried out in a manner sympathetic to the heritage values of the item.	No	Yes	Construction	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	<p>The approved Construction Heritage Management Plan (M4E-ES-PLN-PWD-00238) (21 July 2016) addresses the requirements of this CoA within Sections 6 and 7.1 of the plan.</p> <p>No acoustic treatments were installed within the reporting period for this QCCR. The project will obtain the advice of an appropriately experienced heritage expert prior to installing any acoustic treatment at any heritage items.</p>
B30		The Proponent must, where feasible and reasonable, design and construct the SSI to avoid impacts to trees that are heritage items or are associated with the heritage significance of heritage items or heritage conservation areas. In particular, the	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>The approved Construction Heritage Management Plan (M4E-ES-PLN-PWD-00238) (21 July 2016) addresses the requirements of this CoA within Section 6 of the plan.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>Proponent must consider avoidance or minimisation of impacts to the street trees within Sydney Street and Edward Street, Concord, and street trees within the Haberfield Heritage Conservation Area.</p> <p>Where impacts to street trees in these areas cannot be avoided, the Proponent must further investigate feasible and reasonable options for relocation of those trees, prior to the commencement of works that may impact the relevant trees. Details of the replacement of any removed or damaged street trees are to be detailed in the Urban Design and Landscape Plan as required by condition B45, and in consultation with the relevant council(s).</p>											<p>CSJ will avoid impacts to heritage-associated trees where feasible and reasonable through the design and construction phases. During the reporting period the Wattle Street civil site have proposed a realignment of their driveway and footpath which would avoid impacts to heritage street trees.</p> <p>A Heritage Tree Register (M4E-ES-REG-PWD-00748-01) has been established to track heritage trees that are retained through design/construction adjustments or that are required to be trimmed or removed. During the reporting period heritage street trees were removed on Edward and Sydney Street, Concord, and Northcote Street, Haberfield. The project investigated if these trees could be relocated, however it was deemed to be not feasible or reasonable as:</p> <ul style="list-style-type: none"> <li>• Relocation would require hand digging to avoid services which would damage the roots and significantly lower the chance of survival post relocation,</li> <li>• The trees would not retain their heritage value if relocated, and</li> <li>• The cost of relocation was prohibitive.</li> </ul> <p>Details of the replacement of any removed or damaged street trees will be addressed in the UDLP.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
B31		The Proponent must not cause impact that would result in the removal, harm or modification of any heritage listed fig tree adjacent to or within the confines of the area identified as Cintra Park, Concord or Concord Oval, during construction of the SSI.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>The approved Construction Heritage Management Plan (M4E-ES-PLN-PWD-00238) (21 July 2016) addresses the requirements of this CoA within Section 6 of the plan.</p> <p>This requirement is addressed through the safeguards listed in Section 6 of the HMP. All heritage trees to be retained will be marked appropriately on the relevant SEPs and flagged/marked on site.</p> <p>The project has not completed any construction works which have resulted in the removal, harm or modification of any heritage listed fig tree adjacent to or within the confines of the area identified as Cintra Park, Concord or Concord Oval during the reporting period which this QCCR applies.</p>
B32		<p>The Proponent must prepare a Heritage Interpretation Plan which identifies and interprets the key heritage values and stories of heritage items and heritage conservation areas impacted by the SSI. The Heritage Interpretation Plan must include, but not be limited to:</p> <p>(a) a discussion of the key interpretive themes, stories and messages proposed to interpret the history and significance of the affected heritage items and sections of heritage conservation areas including, but not limited to, Yasmar Estate, Powells Creek Heritage Conservation Area, Thornleigh House gates and driveway, Longbottom Stockade (Concord Oval) and the Haberfield Heritage Conservation Area; and</p> <p>(b) identification and confirmation of interpretive initiatives implemented to mitigate impacts to archaeological relics, heritage items and conservation areas affected by the SSI.</p> <p>The Heritage Interpretation Plan must be prepared in consultation with the NSW Heritage Council and submitted to the Secretary.</p>	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>The approved Construction Heritage Management Plan (M4E-ES-PLN-PWD-00238) (21 July 2016) addresses the requirements of this CoA within Sections 5 and 6 of the plan.</p> <p>The requirement for a Heritage Interpretation Plan is identified in the safeguards listed in Section 6 of the HMP and is also addressed in Section 5.</p> <p>The project has commenced drafting a Heritage Interpretation Plan for the project, which will be developed in parallel with the Urban Design and Landscape Plan.</p>
TRANSPORT AND ACCESS													





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
B33		The SSI is to be designed with the objective of improving, on balance, impacts to: <ul style="list-style-type: none"> <li>existing traffic performance; and</li> <li>existing access arrangements and services for other transport modes, where feasible and reasonable, including consideration of speed and reliability of public transport services.</li> </ul>	Yes	Yes	Design	TBC	No	N/A	N/A	N/A	CSJ	Open	Current design is being undertaken in consideration of all Conditions of Approval, including the requirement to improve existing traffic performance and access arrangements.
B34		Consistent with the modelling contained in the documents referred to in condition A2(b), the <i>Sydney CBD to Parramatta Strategic Transport Plan</i> (Transport for NSW, 2015, or as updated) and in consultation with Transport for NSW, at least two lanes of Parramatta Road, from Burwood Road to Haberfield, are to be solely dedicated for the use of public transport unless an alternative dedicated public transport route that provides an improved public transport outcome for the area, when compared to two dedicated public transport lanes on Parramatta Road, is approved by the Secretary.	No	Yes	Design	TBC	Yes	TBC	TBC	TBC	WCXM4 Co	Not yet triggered	The Motorway Integration Group has been formed and includes representatives of Roads and Maritime and Transport for NSW. The Group meets fortnightly to discuss broader motorway issues. The requirement of this condition is currently under discussion by the Motorway Integration Group.
B35		In relation to new or modified local road, parking, pedestrian and cycle infrastructure, the SSI (including ancillary facilities) must be designed: <ul style="list-style-type: none"> <li>(a) in consultation with the relevant roads authority;</li> <li>(b) in consultation with UrbanGrowth NSW for areas within the project boundary adjacent to Parramatta Road (excluding ancillary facilities and temporary traffic changes);</li> <li>(c) on consultation with SOPA in relation to the operation of the eastbound cycleway and the Mousehole in the vicinity of Sydney Olympic Park;</li> <li>(d) in consideration of existing and future demand, road and pedestrian safety and traffic network impacts; and</li> <li>(e) to meet relevant design, engineering and safety guidelines, including <i>Austrroads Guide to Traffic Engineering Practice</i>.</li> </ul> An independent Road Safety Audit(s) is to be undertaken by an appropriately qualified and experienced person during detailed design to assess the safety performance of any new or modified local road, parking,	Yes	Yes	Design	TBC	No	N/A	N/A	N/A	CSJ	Open	As part of the project design review process Roads and Maritime review the design at various stages. The Road Geometry design will be provided to council for consultation during the next reporting period.  The design documents address engineering and safety guidelines, including <i>Austrroads Guide to Traffic Engineering Practice</i> , with consideration of impacts to the existing and future demand, road and pedestrian safety and traffic network. Independent road safety audit(s) are built into the design development process.  Consultation has been undertaken with SOPA as design progresses around the Homebush Bay Drive Area, with meetings held on 27 April and 24 May 2016. Independent Road Safety Audits have been completed for the following access arrangements and road modifications during the reporting period for this QCCR:



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		pedestrian and cycle infrastructure provided as part of the SSI (including ancillary facilities) to ensure that they meet the requirements of item (d) this condition. Audit findings and recommendations must be actioned prior to construction of the relevant infrastructure and must be made available to the Secretary on request.											<ul style="list-style-type: none"> <li>Homebush bay Drive Interchange – Road Geometry – 8 January 2016,</li> <li>Concord Road Interchange – Road Geometry – 8 January 2016,</li> <li>Wattle Street Interchange – Road Geometry – 11 April 2016,</li> <li>Parramatta Road Interchange- Road Geometry – 27 April 2016,</li> <li>Tunnel – Road Geometry – 8 April 2016,</li> <li>Dobroyd Parade, Martin Street, Wolseley Street – Road Geometry – 30 May 2016</li> <li>Homebush Bay Drive Traffic Staging – Stage 2 – 2 May 2016,</li> <li>Concord Road Traffic Staging – Stage 1 and 2 – 25 May 2016,</li> <li>Wattle Street Traffic Staging – Stage 1 – 23 June 2016,</li> <li>Parramatta Road Traffic Staging – Stage 1 – 23 May 2016</li> <li>Powell Street civil site access – 30 May 2016,</li> <li>Concord Road civil site access – 29 April 2016,</li> <li>Concord Road tunnel site access – 23 May 2016,</li> <li>Wattle Street civil site access – 15 April 2016, and</li> <li>Parramatta Road civil site access – 13 May 2016.</li> </ul>
<b>WASTE MANAGEMENT</b>													
B36		Waste generated outside the site must not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence or waste exemption under the	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	This is addressed in Section 5 W4 and Annexure A of the Waste and Resource Management Plan (M4E-ES-PLN-PWD-00244), a sub-plan to the DP&E approved



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<i>Protection of the Environment Operations Act 1997</i> , if such a licence is required in relation to that waste.											CEMP (M4E-ES-PLN-PWD-00233). Wastes generated outside of the SSI will not be received at the SSI site for storage, treatment (re)processing or disposal on the site unless permitted by a licence or waste exemption under the POEO Act, if such a licence is required in relation to that waste. No waste generated outside of the site has been received at the site during the reporting period to which this QCCR applies.
B37		The reuse and/or recycling of waste materials generated on site must be maximised as far as practicable, to minimise the need for treatment or disposal of those materials off site.	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>This is addressed in Section 4.2 and Annexure A of the Waste and Resource Management Plan (M4E-ES-PLN-PWD-00244), a sub-plan to the DP&amp;E approved CEMP (M4E-ES-PLN-PWD-00233).</p> <p>The reuse / recycling of waste materials will be maximised where possible. Opportunities will be identified throughout the construction phase, and may include, but will not be limited to:</p> <ul style="list-style-type: none"> <li>• The cut and fill requirements of the SSI works will be balanced where possible;</li> <li>• Topsoil will be reused on site where possible;</li> <li>• Excavated spoil would be used as backfill, etc.</li> </ul> <p>Targets for the reuse and recycling of wastes are established and tracked through the Delivery Phase Sustainability Plan. Resource Recovery opportunities are discussed in Section 4.2 of the WRMP.</p> <p>During the reporting period the following waste reuse opportunities were identified:</p> <ul style="list-style-type: none"> <li>• The reuse of the Cintra Park hockey surface and the underlay,</li> <li>• Utilisation of carpet from the demolished properties for sediment and dust control,</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													<ul style="list-style-type: none"> <li>Demolition contractors are incentivised to identify and salvage as much of the materials from the properties for re-use, and</li> <li>Concrete from the demolition sites are being maintained on the site (where possible) to minimise the need for new material for erosion control.</li> </ul>
B38		All liquid and/or non-liquid waste generated on the site must be assessed and classified in accordance with <i>Waste Classification Guidelines</i> (DECCW, 2009) or any superseding documents.	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>This is addressed in Section 4.1, Section 5 W2, W9 and Annexure A of the Waste and Resource Management Plan (M4E-ES-PLN-PWD-00244), a sub-plan to the DP&amp;E approved CEMP (M4E-ES-PLN-PWD-00233).</p> <p>All wastes removed from the SSI and disposed offsite during the reporting period for this QCCR were assessed and classified in accordance with Waste Classification Guidelines, with:</p> <ul style="list-style-type: none"> <li>Approximately 18,000T General Solid Waste (spoil) removed, and</li> <li>Approximately 9000T of Virgin Excavated Natural Material (VENM) removed.</li> </ul>
B39		All waste materials removed from the SSI site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>Wastes removed from the project were directed to a waste management facility or premises lawfully permitted to accept the materials.</p> <p>This condition is addressed in Section 4.6, Section 5 (W2 and W9) and Annexure A of the Waste and Resource Management Plan (M4E-ES-PLN-PWD-00244), a sub-plan to the DP&amp;E approved CEMP (M4E-ES-PLN-PWD-00233).</p> <p>During the reporting period waste material has been lawfully disposed at the following locations:</p> <ul style="list-style-type: none"> <li>ADI, St Mary's</li> <li>Stockland Marsden Park</li> <li>Schofields</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													<ul style="list-style-type: none"> <li>• Kemps Creek</li> <li>• Brandown Pty Ltd</li> <li>• SITA</li> <li>• Blacktown Waste Services</li> <li>• Dial a dump – Genesis</li> <li>• Builders Recycling Operations (Chester Hill)</li> <li>• Banksmeadow Recycling</li> <li>• Gow Street Recycling Centre.</li> </ul> <p>Spoil was also reused at the Concord Road tunnel site as part of establishment earthworks.</p>
B40		The handling of spoil generated during construction of the SSI is to be conducted in accordance with the Spoil Management Plan required under condition D46.	Yes	Yes	Construction	TBC	No	N/A	N/A	N/A	CSJ	Open	<p>All spoil management, including approvals checks for receiving sites, will be undertaken in accordance with the Project Spoil Management Plan (M4E-PM-PLN-PWD-00202), as required by CoA D46 and approved by DP&amp;E on 30 June 2016.</p>
<b>UTILITIES AND SERVICES</b>													
B41		Utilities, services and other infrastructure potentially affected by construction and operation must be identified prior to construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the SSI must be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required.	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>The Project has identified over 200 utilities which will be affected by construction works and will require access to, diversion, protection and support. CSJ have consulted with the following the following Utility Providers to make arrangements for providing access, diversion, protection and support:</p> <ul style="list-style-type: none"> <li>• Sydney Water</li> <li>• Ausgrid</li> <li>• Jemena</li> <li>• Optus</li> <li>• Telstra</li> <li>• RMS</li> <li>• Sydney Trains</li> <li>• Uecomm</li> <li>• Vocus</li> <li>• Pipe Networks</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence															
			Stage 1	Stage 2																								
													<ul style="list-style-type: none"> <li>• AAPT</li> <li>• NetGen</li> <li>• Verizon</li> <li>• NBN.</li> </ul>															
<b>DILAPIDATION REPORTING</b>																												
B42		<p>The Proponent must undertake dilapidation surveys and prepare dilapidation reports on the current condition of buildings, services and utilities identified as at risk from settlement or vibration. The dilapidation surveys and reports must be prepared by a suitably qualified and experienced person(s) and must be provided to the owners of the buildings, services and utilities for review prior to the commencement of potentially impacting construction activities.</p> <p>Following completion of construction, subsequent dilapidation surveys must be undertaken to assess damage to the building, services and utilities that may have resulted from the construction of the SSI. The Proponent must carry out rectification at its expense and to the reasonable requirements of the property, services and utility owner(s).</p>	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>Dilapidation surveys carried out have been on vehicle bridges, walkway bridges, culverts, drainage pits etc. This information has been provided to Strathfield Council, Canada Bay Council and Ashfield Council (now Inner West Council).</p> <p>A summary of building surveys undertaken to date are in the table below.</p> <table border="1"> <thead> <tr> <th></th> <th>Contacted</th> <th>Responded</th> <th>PCS survey completed</th> <th>PCS report sent</th> </tr> </thead> <tbody> <tr> <td>Residential</td> <td>2614</td> <td>1328</td> <td>1269</td> <td>1206</td> </tr> <tr> <td>Commercial</td> <td>188</td> <td>76</td> <td>68</td> <td>68</td> </tr> </tbody> </table> <p>CSJ has commenced dilapidation surveys on buildings and services in the vicinity of the project. . (In the case of building surveys, they are being undertaken for those owners who wish to have surveys completed.)</p> <p>Surveys would be undertaken prior to the commencement of potentially impacting construction activities (e.g. piling in close proximity to houses or utility works in close proximity to other utilities/services).</p>		Contacted	Responded	PCS survey completed	PCS report sent	Residential	2614	1328	1269	1206	Commercial	188	76	68	68
	Contacted	Responded	PCS survey completed	PCS report sent																								
Residential	2614	1328	1269	1206																								
Commercial	188	76	68	68																								
B43		<p>Upon determining the access route(s) for construction vehicles associated with the SSI a suitably qualified and experienced independent expert must prepare a Local Road Dilapidation Report for local roads within control of the relevant councils. The Local Road Dilapidation Report must assess the current condition of the road and describe mechanisms to restore any damage that may result due to its use by traffic and transport related to the construction of the SSI. The Local Road Dilapidation Report</p>	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>CSJ has completed local road dilapidation assessments. The reports were provided to Strathfield, Canada Bay and Ashfield Council (now Inner West Council) on 19 April 2016 and to the Secretary on 21 April 2016. This was prior to the commencement of haulage associated with major earthworks or tunnelling.</p>															



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>must be submitted to the Secretary for information and the relevant council for review prior to the use of local roads by construction traffic.</p> <p>Following completion of construction, a subsequent Local Road Dilapidation Report must be prepared to assess any damage to the road that may have resulted from the construction of the SSI.</p> <p>Measures undertaken to restore or reinstate roads affected by the SSI must be undertaken in a timely manner, in accordance with the reasonable requirements of the relevant council, and at the full expense of the Proponent.</p> <p><i>Note:</i>                      Nothing in these conditions restricts the Proponent commencing adjustments and minor upgrades to the existing road network to cater for construction traffic and installation of temporary project signage prior to the commencement of construction.</p>											<p>Condition surveys are undertaken on all roads within a designated 50m buffer zone of the project footprint. Condition surveys are undertaken for roads being utilised for construction, including light and heavy vehicles.</p> <p>The Road Dilapidation Reports included both local, State and regional roads and were not strictly restricted to local / unclassified roads, going above the requirements of the condition.</p> <p>It is noted that approval by the Secretary is required for use of local roads for heavy vehicle movements associated with construction of the SSI (including but not limited to spoil haulage, materials delivery and access to and from ancillary construction compounds) in accordance with CoA D42.</p>
URBAN DESIGN, VISUAL AMENITY AND LANDSCAPE													
Urban Design Review Panel													
B44	(a)	<p>Within three months of the date of this approval, unless otherwise agreed by the Secretary, the Proponent must establish an Urban Design Review Panel (UDRP) to provide advice and guidance during detailed design and the preparation of the Urban Design and Landscape Plan and its component sub-plans as required by conditions B45 and B46, respectively. The UDRP is to provide advice in relation to architecture, heritage values, urban and landscape design and artistic aspects of the SSI and must:</p> <p>be comprised of:</p> <ol style="list-style-type: none"> <li>i. representatives from the Proponent, including the Head of Urban Design;</li> <li>ii. where the works affect places of heritage significance, an independent heritage architect;</li> <li>iii. two independent architects one of which is a landscape architect;</li> <li>iv. representatives from the relevant council(s);</li> </ol>	Yes	Yes	Within 3 months of PA (11 May 2016)	Ongoing	No	N/A	N/A	N/A	WCXM4 Co	Open	<p>WCXM4 Co has established the Urban Design Review Panel with meetings occurring on:</p> <ul style="list-style-type: none"> <li>• 15 April 2016; and</li> <li>• 7 June 2016.</li> </ul> <p>Meeting minutes were retained and distributed among Panel members.</p> <p>The Urban Design Review Panel is comprised of the following representatives:</p> <ul style="list-style-type: none"> <li>• The Proponent's Head of Urban Design;</li> <li>• Where the works affect places of heritage significance, an Independent heritage architect;</li> <li>• Two independent architects;</li> <li>• Council representatives;</li> <li>• UrbanGrowth; and</li> <li>• Relevant experts.</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		v. depending on the works being considered, one representative from UrbanGrowth NSW; vi. where the works affect places of heritage significance, one representative from the Heritage Council of NSW (or delegate); vii. a maximum of two experts, relevant to the works being considered, as selected by the Proponent, where relevant; and viii. the NSW Government Architect as Chair;  (b) meet at least four times a year, or as otherwise agreed by the UDRP;  (c) review and provide advice on the detailed design of the SSI including architectural, sympathetic heritage design, landscape and urban design elements and final review of the Urban Design and Landscape Plan as required by condition B45; and  (d) keep a record of meeting minutes and a schedule of action items arising from the meeting,  The Proponent may establish a separate UDRP for each precinct.											The NSW Government Architect is Chair.
Urban Design and Landscape Plan													
B45		Prior to commencement of permanent built works and/or landscaping, or as otherwise agreed by the Secretary, an Urban Design and Landscape Plan (UDLP) must be prepared and implemented for the SSI. The UDLP must be prepared by a suitably qualified and experienced person(s), in consultation with the relevant council(s) and community, SOPA, NSW Heritage Council, UrbanGrowth NSW and the UDRP (as established under condition B44). The UDLP must be approved by the Secretary. The UDLP must present an integrated urban and landscape design for the SSI, and must include, but not be limited to:  (a) identification of design objectives, principles and standards based on – i. local environmental and heritage values, ii. urban design context,	Yes	Yes	Prior to permanent built works.	August 2016	Yes	TBC	TBC	TBC	CSJ	Open	The first works to be constructed that would require the approval of the UDLP, are not due to commence until mid-August 2016. Work on the project urban design has commenced, with the first round of consultation meetings occurring in late-April 2016 with Ashfield Council, Canada Bay Council, Strathfield Council, the UDRP and SOPA.  CSJ propose to stage the UDLP to ensure that the urban design aspects of permanent built works are approved by the Secretary prior to the commencement of construction of these works. The first UDLP would be for two retaining walls within the Homebush Bay Drive zone and would be provided to the





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		iii. sustainable design and maintenance, iv. community safety, amenity and privacy, including 'safer by design' principles where relevant, v. relevant design standards and guidelines, and vi. the urban design principles outlined in the documents listed in conditions A2 (b) and A2(c);  (b) landscaping and building design opportunities to mitigate the visual impacts of the operational fixed facilities (including the ventilation facilities, emergency smoke extraction outlets and the Motorway Operations Complex), and impacts to visual amenity or setting of the Haberfield Heritage Conservation Area, the Powells Creek Heritage Conservation Area, Yasmar Estate and Ashfield Park, in accordance with the following design considerations i. design and proportions of building facades, fences and landscaping should have regard to the surrounding urban context and built form and streetscape character, ii. providing sympathetic designs, built form and landscaping integration with areas of heritage value, iii. opportunities for deep soil zone should be retained to sustain vegetation, including large trees, iv. design should have regard to breaking up building massing and articulating buildings and fences, and v. variations in materials and finishes should be used;  (c) details on the location of existing vegetation and proposed landscaping (including use of endemic and advanced tree species where practicable). Details of species to be replanted/revegetated must be provided, including their appropriateness to the area and habitat for threatened species. Where feasible and reasonable, vegetation to be removed must be reused;  (d) a description of disturbed areas (including compounds) and details of the strategies to											Secretary for approval in mid-August 2016.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>progressively rehabilitate, regenerate and/ or revegetate these areas;</p> <p>(e) a description of the design features, built elements, lighting and building materials;</p> <p>(f) information on the reuse of heritage items and materials as required by condition B24;</p> <p>(g) an assessment of the visual screening effects of existing vegetation and the proposed landscaping and built elements. Where receivers have been identified as likely to experience high visual impact as a result of the SSI, the Proponent must in consultation with affected receivers, identify opportunities for providing at-receiver landscaping to further screen views of the SSI. Where agreed to with the landowner, these measures must be implemented during the construction of the SSI;</p> <p>(h) measures to mitigate and/or offset impacts to trees that are heritage items or associated with the heritage significance of heritage items or heritage conservation areas;</p> <p>(i) an assessment of the location, design and impacts of all operational lighting associated with the SSI and measures proposed to minimise lighting impacts;</p> <p>(j) details of where and how recommendations from the UDRP have been incorporated into the plan;</p> <p>(k) graphics such as sections, perspective views and sketches for key elements of the SSI, including, but not limited to, built elements of the SSI;</p> <p>(l) monitoring and maintenance procedures for the built elements, rehabilitated vegetation and landscaping (including weed control) including performance indicators, responsibilities, timing and duration and contingencies where rehabilitation of vegetation and landscaping measures fail;</p> <p>(m) the sub-plans identified in condition B46; and</p> <p>(n) evidence of consultation with the UrbanGrowth NSW and community on the proposed urban design and landscape measures, prior to finalisation of the Plan.</p> <p>A copy of the UDLP must be provided to UrbanGrowth NSW and have regard to the</p>											



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p><i>Draft Parramatta Road Urban Transformation Strategy (UrbanGrowth NSW, 2015, or as updated).</i></p> <p><i>Note:</i></p> <p><i>The UDLP may be submitted in stages to suit a staged construction program of the SSI or in stages to address the built elements of the SSI and landscaping aspects of the SSI.</i></p>											
B46		<p>The Urban Design and Landscape Plan must include the following Sub-plans:</p> <p>(a) an Access and Connectivity Management Sub-plan to facilitate the provision of connectivity and accessibility enhancements along the SSI and surrounding areas. The Access and Connectivity Sub-plan must include an assessment of each accessibility and connectivity opportunity taking into account their effectiveness and any additional impacts they may generate, and a time commitment for the delivery of each opportunity identified.</p> <p>(b) a Concord Road Interchange Urban Design and Landscape Sub-plan for the precincts referred to as the Concord Road Precinct and Edward Street Precinct in the document listed in condition A2(b). The Concord Road Interchange Urban Design and Landscape Sub-Plan must detail the final landscape of the precincts, and must consider heritage impacts to Powells Estate Heritage Conservation Area.</p> <p>(c) a Wattle Street Interchange Urban Design and Landscape Sub-plan for the precincts referred to as the Haberfield Precinct, Wattle Street Precinct and Dobroyd Parade Precinct in the document listed in condition A2(b), the eastern ventilation facility and associated ancillary infrastructure, and noise walls and surface road infrastructure within this area. The Wattle Street Interchange Urban Design and Landscape Sub-plan must detail the final landscaping of the precincts, and must consider heritage impacts to the Haberfield Heritage Conservation Area and provide a design consistent with the adjoining Reg Coady Reserve.</p> <p>(d) an Arnotts Reserve Urban Design and Landscape Sub-plan for the area within Arnotts Reserve impacted by the SSI. The Arnotts Reserve Urban Design and</p>	Yes	Yes	Prior to permanent built works.	August 2016	Yes	TBC	TBC	TBC	CSJ	Open	<p>The first works to be constructed that would require the approval of the UDLP, are not due to commence until mid-August 2016. Work on the project urban design has commenced, with the first round of consultation meetings occurring in late-April 2016 with Ashfield Council, Canada Bay Council, Strathfield Council, the UDRP and SOPA.</p> <p>CSJ propose to stage the UDLP to ensure that the urban design aspects of permanent built works are approved by the Secretary prior to the commencement of construction of these works. The first UDLP would be for two retaining walls within the Homebush Bay Drive zone and would be provided to the Secretary for approval in mid-August 2016.</p> <p>The main UDLP and Sub-Plans is currently being drafted will be released for consultation with the community and other stakeholders in September 2016.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence	
			Stage 1	Stage 2										
		<p>Landscape Sub-plan must ensure the design outcomes are aligned with Strathfield Council's <i>Powells Creek Master Plan</i> (August, 2008), where feasible and reasonable, and detail how the visual bulk of any permanent infrastructure will be minimised. The Arnotts Reserve Urban Design and Landscape Sub-plan must take into consideration Sydney Water's naturalisation project for Powells Creek.</p> <p>The Arnotts Reserve Urban Design and Landscape Sub-plan must provide for pre- and post-construction dilapidation surveys of the Arnotts Reserve and the dilapidation surveys are to be reviewed and agreed to by Strathfield Council. The cost of any required rehabilitation as identified in dilapidation surveys must be borne by the Proponent. Within six months of the completion of construction, the Proponent must ensure the portion of Arnotts Reserve, temporarily acquired for the purposes of the SSI, is returned to Strathfield Council in at least a pre-construction condition that contributes to the progression of works required under the <i>Powells Creek Master Plan</i>.</p> <p>Any work in Arnotts Reserve must be carried out in consultation with Strathfield Council and approved by the Secretary.</p>												
	(e)	<p>a Cintra Park Precinct Urban Design and Landscape Sub-plan for the area defined as the Cintra Park Precinct within the document listed in condition A2(b). The Cintra Park Precinct Urban Design and Landscape Sub-plan must detail the final site layout and landscape design for the Cintra Park operational facility and assess the feasibility of locating the facility away from the Taylor Street boundary allowing the use of residual land for improved recreational or other functional open space uses. The design of any recreational or functional open space is to be completed in consultation with the relevant council and be consistent with the <i>Cintra and St Luke's Park Management Action Plan</i>, as revised.</p>												
	(f)	<p>a Noise Barrier Location and Design Sub-plan which includes –</p> <ul style="list-style-type: none"> <li>i. identification and confirmation of all noise barrier locations associated with the SSI including new, relocated or modified barriers,</li> </ul>												



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		ii. the consultation and decision making process for all new, relocated or modified noise barriers associated with the SSI, iii. assessment of the potential impacts of the barriers including visual amenity, overshadowing and connectivity and community cohesion, iv. consideration of safer safety by design principles, the WestConnex Urban Design Framework, RMS Design Guidelines, v. adjacent property owner concerns and preferences regarding barrier design and location, and vi. justification for the final design of new, relocated or modified barriers.  The barrier design options must be developed in consultation with the UDRP and presented to landowners adjacent to the barriers for consultation prior to the adoption of a final design.  All sub-plans required under this condition must be sympathetic to the relevant council's local open space design guidelines, policies and programs as applicable and must consider and be consistent with the <i>Draft Parramatta Road Urban Transformation Strategy</i> (UrbanGrowth, 2015, or as updated).											
B47		The SSI must be designed to retain as many trees as possible and provide a net increase in the number of replacement trees. In the event that trees are to be removed, then replacement trees are to be planted within, or in close proximity to, the SSI boundary. The location of the trees must be determined in consultation with the relevant council(s). The replacement trees are to have a minimum pot size of 75 litres.	Yes	Yes	Design Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	This condition relates to the design and construction phase and is addressed in the DP&E approved Flora and Fauna Management Plan (M4E-ES-PLN-PWD-00237-D) and the UDLP. Prior to clearing works, trees to be removed as part of the construction works have been counted as part of the pre and post clearing surveys so that numbers can be established for replacement trees.
<b>OVERSHADOWING</b>													
B48		Existing residential properties (and approved residential developments) that are affected by overshadowing from the final detailed design of the SSI (including any noise mitigation measures) are to receive a minimum of three hours of direct sunlight in	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Not yet triggered	A Solar Access and Overshadowing Report will be prepared for these works, to be lodged within 12 months of the



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>habitable rooms and in at least 50% of the principal private open space area between 9:00 am and 3:00 pm on 21 June. Such properties must be identified for further consideration in a Solar Access and Overshadowing Report.</p> <p>The Proponent must prepare a Solar Access and Overshadowing Report to assess compliance with the above requirements. The Solar Access and Overshadowing Report must be submitted to the Secretary within 12 months of the SSI approval and must include:</p> <p>(a) identification of potentially affected properties;</p> <p>(b) assessment of the detailed design's compliance at each property, informed by –</p> <ol style="list-style-type: none"> <li>i. a review of the habitable rooms within structures,</li> <li>ii. the size and nature of private open spaces, and</li> <li>iii. shadow diagrams in plan and elevation at hourly intervals between 9.00 am and 3.00 pm on 21 June; and</li> </ol> <p>(c) a consultation plan to detail how potential impacts and mitigation measures will be discussed and negotiated with potentially affected property owners in the event that compliance with this condition is not achieved.</p> <p>Where existing residential development currently receives less than the required amount of solar access, existing access to sunlight should not be unreasonably reduced.</p> <p>Where affected properties include dwellings held under strata or community title, this condition must be interpreted in relation to individual units within those properties.</p>											<p>granting of the SSI approval on 11 February 2016.</p> <p>The design process for the permanent works that may trigger this condition are still in development.</p> <p>Compliance against this condition will therefore continue be reported on in the QCCRs during development of the report and negotiation with affected residents.</p>
<b>PROPERTY AND LAND USE</b>													
B49		The Proponent must design and construct the SSI with the objective of minimising impacts to, and interference with, third party property and infrastructure and that such infrastructure and property is protected during construction and operation. Any damage caused to property as a result of the SSI must be rectified or the landowner	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>To date the project has damaged and repaired the following third party property or infrastructure:</p> <ul style="list-style-type: none"> <li>• Contact with non-listed Jemena service on Queens Lane, Concord</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		compensated, within a timeframe defined in the Construction Environmental Management Plan.											<ul style="list-style-type: none"> <li>Contact with domestic sewer service on Alt St, Haberfield</li> <li>Contact with domestic water service on Concord Rd, Concord</li> </ul> <p>In all instances, the utility provider was contacted and the damaged asset repaired.</p> <p>To avoid impacts to other third party infrastructure during construction the following mitigation measures have been implemented:</p> <ul style="list-style-type: none"> <li>All works have been undertaken within site boundaries where possible,</li> <li>Works have been planned through the development of work packs and design documentation, with the requirements in these documents implemented during the works,</li> <li>Using traffic control as required,</li> <li>Ensuring the correct permits have been obtained before work commences and protection measures are in place if there is a risk of damage to third party infrastructure</li> <li>Appropriate erosion and sedimentation controls have been installed to prevent runoff and/or impacts to storm water drains, adjacent properties, etc., and</li> <li>Noise walls have been established where practicable.</li> </ul> <p>In the future, any damage or removal of property (including groundwater bores) will be replaced or repaired, or the landowner compensated within a reasonable timeframe.</p> <p>Complaints regarding property damage will be managed in accordance with the Construction</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													Complaints Management System and the Community Communication Strategy (CCS).
B50		The Proponent must construct and operate the SSI with the objective of minimising light spillage to residential properties and be generally consistent with the requirements of <i>Australian Standard 4282-1997 Control of the obtrusive effects of outdoor lighting</i> . Notwithstanding, the Proponent must provide mitigation measures to manage any residual night lighting impacts to protect properties adjoining or adjacent to the project, in consultation with affected landowners.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>Light spillage has been minimised and generally consistent with AS 4282-1997 'Control of the obtrusive effects of outdoor lighting'. During the reporting period no complaints were received, relating to light spill.</p> <p>Additional measures to manage residual lighting impacts may include the following:</p> <ul style="list-style-type: none"> <li>• Cut-off and directed lighting would be used to ensure glare and light spill are minimised,</li> <li>• Lighting to be turned off or reduced to a level which maintains site safety, whenever the facility is not in use,</li> <li>• Use of LED lighting will be considered, and</li> <li>• Existing vegetation will be retained around the perimeter of construction sites where feasible and reasonable.</li> </ul> <p>This condition is addressed in the approved Ancillary Facilities Management Plan (M4E-ES-PLN-PWD-00235) (18 July 2016).</p>
<b>SUSTAINABILITY</b>													
B51		The SSI must be designed and constructed to achieve an excellent 'Design' and 'As built' rating under the Infrastructure Sustainability Council of Australia infrastructure rating tool.	Yes	Yes	Design Construct	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>Significant work on the IS rating process has been undertaken over the past 3 months. A summary of the activities is as follows:</p> <ul style="list-style-type: none"> <li>• The first draft of the base case was issued to ISCA for review, with comments being received shortly after. A response has been prepared, but was put on hold until a decision about moving to version 1.2 of the IS rating tool had been made. A revised base case will be issued in early August.</li> <li>• Reviewed the benefits of adopting the version 1.2 of</li> </ul>





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													<p>the IS rating tool. After consultation with the project, SMC, ISCA and RMS the decision has been made to advance to the latest version.</p> <ul style="list-style-type: none"> <li>Undertook version 1.2 weightings assessment to enable the target scoring to be assigned. Weightings assessment, evidence and revised base case will be issued together in early August.</li> <li>The climate change and urban design categories are well progressed with respect to the required evidence.</li> <li>In total six credits are assumed to have sufficient evidence to progress to the drafting of credit summary forms. Credit summary forms will commence in August with the aim to submit the design rating in 2<sup>nd</sup> FY quarter 2017.</li> </ul>
B52		Opportunities to reduce operational greenhouse gas emissions must be investigated during detailed design. The sustainability initiatives identified must be regularly reviewed, updated and implemented throughout the design development and construction phase, and annually during the operational phases.	Yes	Yes	Design Construct	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>Opportunities to reduce the operational greenhouse gas emissions have continually been identified and investigated and are being identified through the detailed design process. In the past months the following activities have been taking place to ensure sustainable opportunities are being identified:</p> <ul style="list-style-type: none"> <li>All the design packages have been reviewed to identify those ones which have a significant influence on the operational energy of the asset. The design teams for these packages are actively identifying energy saving opportunities and documenting these within their design reports. The majority of these target packages are within the mechanical and electrical area, though there are also ones within the surface buildings and lighting.</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													<ul style="list-style-type: none"> <li>All sustainability opportunities (including operational GHG) are being recorded in the sustainability initiatives and opportunities register. This register will be reviewed monthly from September 2016 and will form part of the monthly client meeting.</li> <li>Regular meetings between the design leads and sustainability are being undertaken to track the progress of the opportunities against project targets.</li> </ul>
<b>SOCIO-ECONOMIC</b>													
B53		The SSI must be designed to achieve a net increase of comparable and functional open space, unless otherwise agreed by the Secretary. For all new open space and where replacement open space is required, the Proponent must, in consultation with the relevant council(s), UrbanGrowth NSW and community groups, provide adequate and appropriate open space of a higher standard within reasonable distances from any open space that has been permanently acquired. The final design and likely time of delivery of all replacement open space must be submitted to the Secretary for approval. <i>Note:</i> <i>This condition has been included as part of a suite of measures aimed at mitigating operational social impacts specific to the SSI.</i>	No	Yes	Design	Ongoing	Yes	TBC	TBC	TBC	WCXM4 Co/CSJ	Open	<p>This condition will be addressed in the UDLP required under CoA B45 and the Residual Land Management Plan which is to be prepared in accordance with condition B58.</p> <p>Work on the project urban design is underway, with the first round of consultation meetings occurring in late-April 2016 with Ashfield Council, Canada Bay Council, Strathfield Council, the UDRP and SOPA. An initial draft report will be provided for consultation. Based on the comments provided during consultation the design will be reviewed and updated, with a second round of consultation meetings. The final UDLP would be issued to DP&amp;E for approval.</p> <p>The Residual Land Management Plan is required to be prepared prior to commencement of operation. Compliance against this condition will continue to be reported in subsequent quarterly reports.</p>
B54		The SSI must not result in the demolition or modification of any social facility that may result in an impact to the functioning or capacity of the facility except for those identified as being directly impacted in the documents referred to in conditions A2(b) and A2(c), or as otherwise agreed by the Secretary.	Yes	Yes	Design Construct	Ongoing	No	N/A	N/A	N/A	CSJ	Open	No demolition or modification of any social facility, except for those identified in the designated documents in conditions A2(b) and A2(c), has been undertaken during the reporting period for this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
B55		The Proponent must work with the Cheil Uniting Church at Concord to locate alternative, permanent and fit-for-purpose facilities, and ensure these are operational, prior to undertaking activities associated with the SSI that result in the diminishing of capacity or functioning of the Church, unless otherwise agreed to by the Church and the Secretary.	Yes	Yes	Construction	TBC	No	N/A	N/A	N/A	WCXM4 Co	Open	The land acquisition process for Cheil Church included working with Cheil Church to explore opportunities for alternative land which would be available for the Church.  An agreement was ultimately made with the Church regarding acquisition of their land.
<b>Social Impact Management</b>													
B56	(a)	No later than 12 months after the commencement of construction, unless otherwise agreed to by the Secretary, the Proponent must prepare a Community and Social Management Plan for precincts directly impacted by the SSI. The Community and Social Management Plan must be prepared by a suitably qualified and experienced person(s) and in consultation with relevant council(s) and the community and submitted to the Secretary for approval. The Community and Social Management Plan must include but is not limited to:  (a) identification of the social impacts of the SSI, including cumulative impacts resulting from the various stages of the SSI (including construction and operation) in directly affected precincts including –  i. at what stage the identified impact is likely to occur,  ii. identification of stakeholders and communities directly affected by each identified impact,  iii. assessment of the identified social impacts including type, probability and consequence,  iv. details of management and mitigation measures, including responsibilities for the implementation of each measure, and an assessment of the likely effectiveness of the measures,  v. identification of access and connectivity enhancements or new provisions to assist in mitigating community cohesion impacts directly resulting from the SSI,  vi. mechanisms for monitoring social impacts and reviewing the effectiveness of mitigation measures;	No	Yes	Construction	12 months after construction commencement	No	N/A	N/A	N/A	WCXM4 Co; CSJ	Not yet triggered	This condition relates to 12 months after the commencement of construction and has not yet been triggered. A Community and Social Management Plan will be prepared in consultation with relevant councils and lodged to DP&E for approval, no later than 12 months after the commencement of construction.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(b)	vii. mechanisms for the reporting of social impacts during construction and operation of the SSI, and viii. mechanisms for ongoing consultation with communities and key stakeholders; and a Community Cohesion Program to enhance community cohesion in precincts directly affected by the SSI through initiatives including, but not limited to i. enhancement of open space, ii. accessibility of the public realm in accordance with condition B46(a), iii. active community involvement and engagement, iv. support of community initiatives and programs, and v. provision of grants to local community groups.  The Proponent must maintain and implement the Community and Social Management Plan throughout construction and for the first three years of operation of the SSI.											
Residual Land Management													
B57		The Proponent must prepare a Residual Land Management Plan prior to the commencement of operation of the SSI. The Residual Land Management Plan must be prepared in consultation with relevant councils and UrbanGrowth NSW and submitted to the Secretary. The Residual Land Management Plan must include, but not be limited to:  (a) identification and illustration on a map, of all residual land following construction of the SSI, including the physical location, land use characteristics, size and adjacent land uses;  (b) identification of proposed uses for the each piece of residual land with consideration given to the provision of additional community uses, public recreation uses and/or affordable or social housing and the justification for the uses chosen;  (c) preparation of an Urban Design and Landscape Plan for land that will be used for public purposes; and	No	Yes	Prior to Operation	Ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ	Not yet triggered	This condition relates to the pre-operational phase. A Residual and Land Management Plan will be prepared in consultation with relevant councils and UrbanGrowth NSW, and will be lodged to the Secretary prior to the commencement of operation.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(d)	time frames for implementing the various components of the Residual Management Plan											
B58		The Proponent must ensure that all residual land set aside for open space uses in accordance with condition B57 be available to the relevant council within 12 months of the completion of construction, unless otherwise agreed to by the Secretary. The residual land is to be in a condition that does not incur additional cost to council to reasonably rehabilitate or remediate the land for future open space development.	No	Yes	Post-Construction	12 months following completion of post-construction	No	N/A	N/A	N/A	CSJ WCXM4 Co	Not yet triggered	This is a post-construction requirement and will be reported against in the quarterly Pre-Operational Compliance Report. CTP referred to in Section 2.3 of this QCCR.
PART C													
COMMUNITY INFORMATION AND REPORTING													
COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT													
C1		<p>Prior to the commencement of construction, or as otherwise agreed by the Secretary, the Proponent must prepare and implement a Community Communication Strategy. The Community Communication Strategy must be submitted to the Secretary for approval. The Community Communication Strategy must provide mechanisms to facilitate communication between the Proponent (and its contractor(s)), the Environmental Representative (refer condition D1), the relevant council(s) and community stakeholders (particularly adjoining landowners) on the design and construction environmental management of the SSI. The Community Communication Strategy must include, but not be limited to:</p> <p>(a) identification of stakeholders to be consulted as part of the Community Communication Strategy, including affected and adjoining landowners, key community and business groups, and community and social service organisations;</p> <p>(b) procedures and mechanisms for the regular distribution of accessible information to community stakeholders on construction progress and matters associated with environmental management, including provision of information in appropriate community languages;</p> <p>(c) the formation of community-based forums that focus on key environmental management issues for the SSI. The Community Communication Strategy must provide detail on the structure, scope,</p>	Yes	Yes	Pre-Construction	TBC	Yes	31/03/2016	TBC	TBC	CSJ	Open	<p>CSJ has prepared a Community Communication Strategy (M4E-CS-PLN-00663-E-CCS) which complies with these requirements, and was approved by DP&amp;E on 18 April 2016.</p> <p>During the reporting period the project has engaged, consulted, communicated and notified the community in accordance with the Community Communication Strategy, with key activities including:</p> <ul style="list-style-type: none"> <li>Regular updates to the project website with community notifications, fact sheets and documents referenced in the Planning Approval,</li> <li>Distribution of notifications via letter box drops, regarding upcoming construction activities and out of hours works,</li> <li>Door knocking and phone calls with residents regarding upcoming construction activities and out of hours works,</li> <li>Continued operation of a toll free 24-hour telephone number for the receipt of complaints and enquiries, and</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(d)	objectives and frequency of the community-based forums; procedures and mechanisms through which the community stakeholders can discuss or provide feedback to the Proponent and/or Environmental Representative in relation to the environmental management and delivery of the SSI;											<ul style="list-style-type: none"> <li>Establishment of a Community Information Centre at 52 Railway Parade, Burwood.</li> </ul> No non-conformances with this Strategy were identified during the reporting period.
	(e)	procedures and mechanisms through which the Proponent can respond to enquiries or feedback from the community stakeholders in relation to the environmental management and delivery of the SSI;											
	(f)	procedures and mechanisms that would be implemented to resolve issues/disputes that may arise between parties on the matters relating to environmental management and the delivery of the SSI. This may include the use of a suitably qualified and experienced independent mediator; and											
	(g)	procedures and mechanisms to manage the ongoing provision of services for the WestConnex Acquisition Assistance Line, as required by condition C2, and procedures for the notification of the contact details for this assistance line to relocated persons. Issues that must be addressed through the Community Communication Strategy include (but are not limited to):											
	(a)	traffic management (including property access, pedestrian access);											
	(b)	air quality;											
	(c)	heritage matters;											
	(d)	landscaping and urban design matters;											
	(e)	construction staging, hours and activities;											
	(f)	noise and vibration mitigation and management; and											
	(g)	water quality, hydrology and flooding matters. The Proponent must maintain and implement the Community Communication Strategy throughout construction of the SSI.											
WestConnex Acquisition Assistance Line													
C2		The Proponent must maintain and operate a toll-free WestConnex Acquisition Assistance Line for a period of up to six months following completion of the final acquisition required for the SSI, unless otherwise agreed by the Secretary. The WestConnex	Yes	Yes	Six months following final acquisition	TBC	No	N/A	N/A	N/A	WCXM4 Co	Open	The services available to support residents who are being relocated as a result of property acquisition include:



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>Acquisition Assistance Line must provide an ongoing dispute resolution, counselling program and contact information to relevant services for all relocated persons. The WestConnex Acquisition Assistance Line must also provide first language support for households with English as a second language.</p> <p>The management of the assistance line is to be outlined within the Community Communication Strategy as required by condition C1 and is to be maintained and operated separately from the standard complaints and enquiries procedure.</p> <p>The Proponent must provide all relevant contact details for the WestConnex Acquisition Assistance Line to relocated persons prior to the commencement of construction.</p>											<ul style="list-style-type: none"> <li>The WestConnex Assist counselling service - 'Converge' – which is the counselling service provided by WCXM4 Co. It is a free, independent and confidential counselling service and is still available for use for relocated persons</li> <li>Community relations support to respond to community issues, concerns and requests and to offer a translation service to households for whom English is a second language</li> <li>Residents who are having their properties acquired or are relocating due the M4 East project (e.g. tenants) have been advised to contact WestConnex directly to discuss available support services.</li> </ul> <p>These services continue to remain in place. The WestConnex Acquisition Assistance Line will remain in place for six months after this final acquisition.</p>
<b>Complaints and Enquiries Procedure</b>													
C3		<p>Prior to the commencement of pre-construction and construction, or as otherwise agreed by the Secretary, the Proponent must ensure that the following are available for community enquiries and complaints for the duration of construction:</p> <p>(a) a toll-free 24 hour telephone number(s) on which complaints and enquiries about the SSI may be registered;</p> <p>(b) a postal address to which written complaints and enquires may be sent;</p> <p>(c) an email address to which electronic complaints and enquiries may be transmitted;</p> <p>(d) a mediation system for complaints unable to be resolved; and</p>	Yes	Yes	Prior to Pre-Construction	Ongoing	No	N/A	N/A	N/A	CSJ WCXM4 Co	Open	<p>WCXM4 Co established the community communications information for complaints and enquiries during the preparation of the Environmental Impact Statement for the Project, fulfilling the requirements of this condition.</p> <p>These same consultation mechanisms are being utilised by CSJ during the construction phase of the project to ensure continuity of contact information for the community and stakeholders.</p> <p>The telephone number, the postal address and the email address have been published in newspapers at regular intervals during construction.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(e)	<p>a mechanism for community members to make enquiries in common community languages of the area.</p> <p>The telephone number, the postal address and the email address must be published in newspaper(s) circulating in the local area including in newspapers of culturally and linguistically diverse communities affected by the SSI prior to the commencement of construction and prior to the commencement of operation. This information must also be provided on the website (or dedicated pages) required by this approval and available in common community languages.</p>											<p>Information regarding avenues for mediation and dispute resolution are contained within Section 7 of the CCS.</p> <p>The information is available on the project website, being:  <a href="http://www.westconnex.com.au">www.westconnex.com.au</a>  <a href="http://www.westconnex.com.au/explore_the_route/stage_1/m4_east_resources.html">www.westconnex.com.au/explore_the_route/stage_1/m4_east_resources.html</a></p>
C4		<p>Prior to the commencement of construction, or as otherwise agreed by the Secretary, the Proponent must prepare and implement a Construction Complaints Management System consistent with <i>AS/NZS 10002:2014 Guidelines for Complaint management in Organisations</i> and maintain the Construction Complaints Management System for the duration of construction and up to 12 months following completion of construction of the SSI.</p> <p>Information on all complaints received, including the means by which they were addressed and whether resolution was reached, with or without mediation, must be maintained in a complaints register and included in the construction compliance reports required by this approval. The information contained within the Construction Complaints Management System must be made available to the Secretary on request.</p>	Yes	Yes	Prior to Pre-Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>WCXM4 Co established the complaints management system to comply with this condition during the preparation of the Environmental Impact Statement for the Project, fulfilling the requirements of this condition.</p> <p>This same consultation manager system is being utilised by CSJ during the construction phase of the project to ensure consistency in reporting of enquiries and complaints.</p>
Provision of Electronic Information													
C5	(a)	<p>Prior to the commencement of construction, or as otherwise agreed by the Secretary, the Proponent must establish and maintain a new website, or dedicated pages within an existing website, for the provision of electronic information associated with the SSI, for the duration of construction and for 12 months following completion of the SSI. The Proponent must, subject to confidentiality, publish and maintain up-to-date information on the website or dedicated pages including, but not limited to:</p> <p>information on the current implementation status of the SSI;</p>	Yes	Yes	Prior to Pre-Construction	Ongoing	No	N/A	N/A	N/A	CSJ WCXM4 Co	Open	<p>The website for the Project was established by WCXM4 Co during the preparation of the Environmental Impact Statement, and will remain in place through the construction phase of the project. The website is:  <a href="http://www.westconnex.com.au">www.westconnex.com.au</a></p> <p>Further detail of documentation for the M4 East Project can be found at:  <a href="http://www.westconnex.com.au/explore_the_route/stage_1/m4_east_resources.html">www.westconnex.com.au/explore_the_route/stage_1/m4_east_resources.html</a></p>





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(b)	a copy of the documents listed in condition A2, and any documentation supporting modifications to this approval that may be granted from time to time;											Information included in the resources page includes: <ul style="list-style-type: none"> <li>a Updates and notifications,</li> <li>b M4 East SSI application, M4 East EIS and M4 East Submissions Report,</li> <li>c Instrument of approval,</li> <li>d EPL and monthly monitoring reports,</li> <li>e CEMP and sub-plans, CCS, AFMP, CTP, Pre-construction asset condition surveys, Stormwater Drainage Reports, Spoil Management Plan, Water Reuse Strategy and Flood Mitigation Strategies that have been finalised to date,</li> <li>f Pre Construction Compliance Report – Stage 1 will be uploaded to the website in the week commencing 09 May 2016.</li> <li>g This information is available on the 'Contact us' page: <a href="http://www.westconnex.com.au/have_your_say/contact_us.html">http://www.westconnex.com.au/have_your_say/contact_us.html</a></li> <li>h Information regarding translating and interpreting service is also available on the 'Contact us' page.</li> </ul>
	(c)	a copy of this approval and any future modification to this approval;											
	(d)	a copy of each relevant environmental approval, licence or permit required and obtained in relation to the SSI;											
	(e)	a copy of each current report, plan, or other document required under this approval;											
	(f)	the outcomes of compliance tracking in accordance with condition A14 of this approval;											
	(g)	details of contact point(s) to which community complaints and enquiries may be directed, including a telephone number, a postal address and an email address; and											
	(h)	information on how to receive important information in the common community languages of the area.											
PART D													
CONSTRUCTION ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING													
ENVIRONMENTAL REPRESENTATIVE													
D1	(a)	Prior to the commencement of construction of the SSI, or as otherwise agreed by the Secretary, the Proponent must appoint a suitably qualified and experienced Environmental Representative(s) that is independent of the design and construction personnel, and that has been approved by the Secretary. The Proponent must employ the Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Secretary. The Environment Representative(s) must: <ul style="list-style-type: none"> <li>(a) be the principal point of advice in relation to the environmental performance of the SSI;</li> </ul>	Yes	Yes	Pre-Construction	Ongoing	Yes	N/A	N/A	N/A	CSJ	Open	CSJ nominated the Environmental Representative (ER) for the Project, and WCXM4 Co provided the relevant information for the ER to DP&E for consideration and approval. DP&E approved the appointment of the nominated alternate ERs, Mr Michael Woolley of MCW Environmental Pty Ltd and Ms Jo Robertson of Healthy Buildings International Pty Ltd as Environmental Representative (ER), on 9 March 2016.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(b)	monitor the implementation of environmental management plans and monitoring programs required under this approval and advise the Proponent upon the achievement of these plans/programs;											<p>During the reporting period for this QCCR the Environmental Representative has:</p> <ul style="list-style-type: none"> <li>• Undertaken fortnightly inspections of the site with CSJ, SMC and other regulators,</li> <li>• Attended fortnightly meetings with DP&amp;E, CSJ and SMC,</li> <li>• Approved six Minor Ancillary Facilities in accordance with CoA D54,</li> <li>• Approved minor changes to two ancillary facilities in accordance with this condition,</li> <li>• Approved minor changes to the CEMP, FFMP and SWMP in accordance with this condition, and</li> <li>• Received one internal audit report from CSJ.</li> </ul>
	(c)	have responsibility for considering, and advising the Proponent on, matters specified in the conditions of this approval, and other licences and approvals related to the environmental performance and impacts of the SSI;											
	(d)	ensure that environmental auditing is undertaken (but not undertake the audit) in accordance with the Proponent's Environmental Management System(s);											
	(e)	be given the authority to approve/reject minor amendments to the Construction Environment Management Plan. What constitutes a "minor" amendment must be clearly explained in the Construction Environment Management Plan;											
	(f)	be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts; and											
	(g)	be consulted in responding to the community concerning the environmental performance of the SSI where the resolution of points of conflict between the Proponent and the community is required.											
D2		The Environmental Representative must prepare and submit to the Secretary a monthly report on the Environmental Representative's actions and decisions on matters specified in condition D1 for the preceding month. The reports must be submitted within seven days for the end of each month for the duration of construction of the SSI, or as otherwise agreed by the Secretary. Notwithstanding, the Environmental Representative must be given the independence to report to the Secretary at any time and/or at the request of the Secretary.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	
SOIL, WATER QUALITY AND HYDROLOGY													
Construction Soil and Water Management													



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
D3		<p>Soil and water management measures consistent with <i>Managing Urban Stormwater - Soils and Construction Vols 1 and 2, 4th Edition</i> (Landcom, 2004) must be employed during the construction of the SSI to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.</p> <p>Where available and practicable, and of appropriate chemical and biological quality, stormwater, recycled water or other water sources must be used in preference to potable water for construction activities, including dust control.</p>	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>Erosion, sedimentation and drainage controls have been implemented as per Site Environmental Plans (or erosion and sediment control plans), including temporary water treatment plants, sediment fencing, check dams, temporary ground stabilisation, diversion berms or site regrading. During the reporting period controls were consistent with <i>Managing Urban Stormwater – Soils and Construction Vols 1 and 2, 4th Edition</i> (the Blue Book) (Landcom, 2004).</p> <p>The implementation of erosion and sediment controls has been inspected through Weekly Environmental Inspections and inspections with the Environmental Representative. Corrective actions raised during these inspections have been closed, as confirmed through the inspection process.</p> <p>The project erosion and sediment control plans have identified the need for sediment basins, which will progressively be installed as a priority following the completion of demolition and other site establishment activities.</p> <p>Where available and practicable, and of appropriate chemical and biological quality, collected water will be reused onsite, eg approximately 55kL of water was reused for dust suppression. Additional opportunities for reusing water onsite or for construction will be investigated and implemented where feasible and reasonable.</p> <p>This condition is included in the DP&amp;E approved Soil and Water Management Plan (M4E-ES-PLN-PWD-00242) (23 March 2016).</p>
D4		The Proponent must ensure any siphonic based water management system implemented during construction is removed and, where applicable, replaced with an adequate permanent drainage system.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Not yet triggered	Current plans do not require any siphonic based water management systems. If the project determines that siphonic based water management



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													systems are necessary, this condition will be addressed.
D5		The Proponent must immediately notify DPI (Water) of any groundwater bores removed or damaged during construction and operation of the SSI. In the event that a groundwater bore is removed or damaged, the Proponent must repair or replace the bore, as applicable within a timeframe agreed to by DPI (Water).	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Impacts to third party infrastructure will be avoided during establishment and operation of the ancillary facilities. Any damage or removal of property (including groundwater bores) will be replaced or repaired or the landowner compensated within a reasonable timeframe. CSJ will immediately notify DPI (Water) if any groundwater bores are removed or damaged during establishment activities. No groundwater bores were damaged or removed during the reporting period which this QCCR applies.
<b>Settlement</b>													
D6		A geotechnical model of representative geological and groundwater conditions must be prepared prior to excavation and tunnelling in subject area(s) to identify geological structures and groundwater features. This model must include details of proposed excavations and tunnels, construction staging, and identify surface and sub-surface structures and infrastructure which may be impacted by the SSI, including the specific attributes of those structures. The Proponent must use this model to assess the predicted settlement, ground movement, stress redistribution and horizontal strain profiles caused by excavation and tunnelling on adjacent property and infrastructure.	No	Yes	Prior to tunnelling	8 July 2016	No	N/A	N/A	N/A	CSJ	Open	The geotechnical model of representative geological and groundwater conditions has been prepared prior to excavation and tunnelling in subject areas, with tunnelling commencing on 16 July 2016. This CoA is addressed in the following documentation: <ul style="list-style-type: none"> <li>The Geotechnical Interpretative Report (00-120-051) details the M4E geotechnical model, which includes all geological conditions and structures identified along the alignment. This report was issued FD on 23 March 2016,</li> <li>The Hydrogeological Model Report (00-120-052) details the groundwater conditions and features identified along the alignment. This report was issued FD on 23 March 2016,</li> <li>Construction staging is captured in individual sites Work Pack's,</li> <li>Predicted settlements, ground movement, stress redistribution and horizontal strain profiles caused by</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence						
			Stage 1	Stage 2															
													excavation and tunnelling have been assessed based on inputs from the Geotechnical Interpretative Report, the Hydrogeological Model Report and individual tunnel/civil Design Lots. This assessment is documented in the Settlement Analysis Report (00-120-058), which was issued as FD on 8 June 2016, <ul style="list-style-type: none"> <li>Surface and sub-surface infrastructure which may be impacted by the SSI, including specific attributes of those structures is addressed in the Monitoring and Infrastructure Protection Report (00-120-059). This report was issued as FD on 8 July 2016.</li> </ul>						
D7		The Proponent must undertake a review of property and infrastructure at risk from damage to determine appropriate settlement criteria to prevent damage prior to commencement of construction that may pose a risk.	Yes	Yes	Prior to tunnelling	8 June 2016	No	N/A	N/A	N/A	CSJ	Open	A Settlement Analysis Report (00-120-058), which was issued as FD on 8 June 2016, was developed to review property and infrastructure at risk of damage from settlement. This is a pre-tunnelling construction requirement and was completed prior to the commencement of tunnelling on 16 July 2016.						
D8		Should the geotechnical model in condition D6 identify exceedances of the criteria established in condition D7 or in Table 1 (whichever is the lower), the Proponent must identify and implement mitigation measures such as appropriate support and stabilisation structures in consultation with the relevant land and/or infrastructure owners prior to the commencement of construction to ensure where possible that underground services, infrastructure and adjacent buildings will not experience settlements exceeding the criteria.	Yes	Yes	Prior to tunnelling	Ongoing	No	N/A	N/A	N/A	CSJ	Open	The geotechnical model of representative geological and groundwater conditions has been prepared prior to excavation and tunnelling in subject areas, with tunnelling commencing on 16 July 2016. Predicted settlements, ground movement, stress redistribution and horizontal strain profiles caused by excavation and tunnelling have been assessed based on inputs from the Geotechnical Interpretative Report, the Hydrogeological Model Report and individual tunnel/civil Design Lots. This assessment is documented in the Settlement Analysis Report (00-120-058), which was issued as FD on 8 June 2016. Based on the						
		Table 1 - Settlement Criteria <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Beneath Structure/Facility</th> <th>Maximum Settlement</th> <th>Maximum Angular</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Beneath Structure/Facility	Maximum Settlement	Maximum Angular														
Beneath Structure/Facility	Maximum Settlement	Maximum Angular																	



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence															
			Stage 1	Stage 2																								
		<table border="1"> <thead> <tr> <th></th> <th>nt</th> <th>Dist ortion</th> </tr> </thead> <tbody> <tr> <td>Buildings - Low or non-sensitive properties (i.e. ≤ 2 levels and car parks)</td> <td>30 mm</td> <td>1 in 350</td> </tr> <tr> <td>Buildings - High or sensitive properties (i.e. ≥ 3 levels and heritage items)</td> <td>20 mm</td> <td>1 in 500</td> </tr> <tr> <td>Roads and Parking areas</td> <td>40 mm</td> <td>1 in 250</td> </tr> <tr> <td>Parks</td> <td>50 mm</td> <td>1 in 250</td> </tr> </tbody> </table> <p>The above criteria do not remove any responsibility from the Proponent for the protection of existing structures or for rectifying any damage resulting from the SSI</p>		nt	Dist ortion	Buildings - Low or non-sensitive properties (i.e. ≤ 2 levels and car parks)	30 mm	1 in 350	Buildings - High or sensitive properties (i.e. ≥ 3 levels and heritage items)	20 mm	1 in 500	Roads and Parking areas	40 mm	1 in 250	Parks	50 mm	1 in 250											<p>assessment four structures fell outside of the settlement criteria:</p> <ul style="list-style-type: none"> <li>• Two buildings at Green Trees Estate (18 – 20 Knocklayde Street, Ashfield),</li> <li>• 26 Acton Street, Croydon, and</li> <li>• 28 Acton Street, Croydon.</li> </ul> <p>Whilst the settlement criteria is exceeded at Green Trees estate, further assessment has found that the works will result in negligible damage as the settlement will be predominantly uniform rather than damage-inducing differential settlement. Likewise, the properties at 26 and 28 Acton Street have predicted damage of 'slight', e.g. cracks which are visible and easily filled.</p> <p>The report also identified a number of properties, utilities and infrastructure which would be monitored in accordance with the project Monitoring and Infrastructure Protection Report (00-120-059) (issued as FD on 8 July 2016), to validate the predicted impacts.</p>
	nt	Dist ortion																										
Buildings - Low or non-sensitive properties (i.e. ≤ 2 levels and car parks)	30 mm	1 in 350																										
Buildings - High or sensitive properties (i.e. ≥ 3 levels and heritage items)	20 mm	1 in 500																										
Roads and Parking areas	40 mm	1 in 250																										
Parks	50 mm	1 in 250																										
D9		Settlement criteria for individual utility structures and infrastructure must be determined in consultation with the relevant authorities prior to the commencement of any construction potentially affecting the individual utility structure or infrastructure.	Yes	Yes	Prior to tunnelling	8 June 2016	No	N/A	N/A	N/A	CSJ	Open	<p>The geotechnical model of representative geological and groundwater conditions has been prepared prior to excavation and tunnelling in subject areas, with tunnelling commencing on 16 July 2016.</p> <p>Settlement criteria for individual utilities structures and infrastructure has been determined in the Settlement Analysis Report (00-120-058), which was issued as FD on 8 June 2016. The project has consulted with the utilities providers, and they are in agreement that the approach taken in the above report is appropriate.</p>															



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
NOISE AND VIBRATION													
Land Use Survey													
D10		A detailed land use survey must be undertaken to confirm sensitive receivers potentially exposed to construction vibration, construction ground-borne noise and operational noise. The survey may be undertaken on a progressive basis but must be undertaken in any one area prior to the commencement of construction works which generate construction vibration or ground-borne noise in that area. The results of the survey must be included in the (or an updated) Construction Noise and Vibration Management Plan as required by condition D57(b).	Yes	Yes	Pre-Construction	March 2016	Yes	03/03/2016	17/03/2016	22/03/2016	CSJ	Open	A noise and vibration consultant was engaged to prepare a detailed land use survey. The results of the survey have been incorporated into the DP&E approved Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241) (22 March 2016).
D11		The noise levels within each Noise Catchment Area (NCA) identified in the EIS should be refined utilising the noise data collected during the exhibition of the EIS to confirm the range of background noise levels and existing traffic noise levels within each NCA.	Yes	Yes	Pre-Construction	March 2016	Yes	03/03/2016	17/03/2016	22/03/2016	CSJ	Open	A noise and vibration consultant has been engaged to further assess the noise and vibration impacts of the project. The background noise levels and subsequent Noise Management Levels for the purpose of managing airborne noise have been identified.  This information has been provided in to the DP&E in the approved Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241) (22 March 2016).
D12		The Proponent must determine whether further noise mitigation beyond what may have been approved in the development application for 17-35 Parramatta Road and 5 Powell Street, Homebush (2015SYE045 DA) is required to achieve relevant noise goals within the <i>NSW Road Noise Policy</i> (DECCW, 2011) and <i>NSW Industrial Noise Policy</i> (EPA, 2000) during construction and operation. The cost of any additional noise attenuation at this location is to be borne by the Proponent and the noise mitigation must be installed where reasonable, within the construction schedule of the development at this location.  This development is to be included in all future modelling, monitoring and review of noise and mitigation measures during operation of the SSI.	No	Yes	Prior to Operation	Ongoing	No	N/A	N/A	N/A	CSJ	Not yet triggered	The property at 17-35 Parramatta Road and 5 Powell Street, Homebush is currently under construction. As completion of construction of the property nears, it will be considered in future modelling, monitoring and the review of mitigation measures during out of hours works. It will also be included in all future modelling, monitoring and review of noise and mitigation measures during operation of the SSI.  Any required treatments for the properties will be addressed in the ONVR required by CoA E29. Compliance will be reported in the QCCRs referred to in Section 2.3 of this QCCR.
Vibration and Building Condition Survey													



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
D13		Prior to construction, properties that are at risk from construction vibration must be identified and incorporated into the Construction Noise and Vibration Management Plan as required by condition D57(b).	Yes	Yes	Pre-Construction	March 2016	No	N/A	N/A	N/A	CSJ	Open	A noise and vibration consultant has been engaged to prepare the Project Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241) which was approved by DP&E on 22 March 2016.
<b>Construction Hours</b>													
D14		Construction activities associated with the SSI must be undertaken during the following standard construction hours:	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Except as permitted by the conditions of this approval or the EPL, works will be restricted to the nominated timeframes. This is addressed in the Project Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241), which includes the Project Out of Hours Works Protocol (M4E-ES-PRC-PWD-00315). Both these documents were approved by DP&E on 22 March 2016.
	(a)	7:00 am to 6:00 pm Mondays to Fridays, inclusive; and											
	(b)	8:00 am to 1:00 pm Saturdays;											
	(c)	at no time on Sundays or public holidays.											
D15		Notwithstanding condition D14, tunnelling may be undertaken 24 hours, seven days per week. Other activities associated with tunnelling (such as spoil haulage only if approved under the Spoil Management Plan, deliveries, work area establishment, temporary road and intersection modifications, roads/cut-and-cover/dive structures and approach roads and ramps, excavation and ground support, civil, mechanical, and electrical, and ventilation facilities construction) may be undertaken outside of the hours specified in condition D14 where allowed in accordance with condition D17.	No	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Except as permitted by the conditions of this approval or the EPL, works will be restricted to the nominated timeframes. This is addressed in the Project Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241), which includes the Project Out of Hours Works Protocol (M4E-ES-PRC-PWD-00315). Both these documents were approved by DP&E on 22 March 2016. An EPL Variation which permitted 24/7 tunnelling works was issued by the EPA on 29 June 2016.
D16		Activities resulting in impulsive or tonal noise emissions must only be undertaken:	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Except as permitted by the conditions of this approval or the EPL, works will be restricted to the nominated timeframes. This is addressed in the Project Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241), which includes the Project Out of Hours Works Protocol (M4E-ES-PRC-PWD-00315).
	(a)	between the hours of 8:00 am to 6:00 pm Monday to Friday;											
	(b)	between the hours of 8:00 am to 1:00 pm Saturday; and											
	(c)	in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block.											





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		For the purposes of this condition, 'continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the subject of this condition.											Both these documents were approved by DP&E on 22 March 2016. CSJ have undertaken some works which have resulted in impulsive noise emissions, including rock hammering. In these instances a respite period was provided every three hours for one hour.
D17		<p>Notwithstanding conditions D14 and D16, construction works associated with the SSI may be undertaken outside the hours specified under those conditions in the following circumstances:</p> <p>(a) construction works that cause <math>L_{Aeq}</math> (15 minute) noise levels that are</p> <ol style="list-style-type: none"> <li>no more than 5 dB(A) above rating background level at any residence in accordance with the <i>Interim Construction Noise Guideline</i> (DECC, 2009), and</li> <li>no more than the noise management levels specified in Table 3 of the <i>Interim Construction Noise Guideline</i> (DECC, 2009) at other sensitive land uses, and</li> <li>continuous or impulsive vibration values, measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.2 of <i>Assessing vibration: a technical guideline</i> (DEC, 2006), and</li> <li>intermittent vibration values measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.4 of <i>Assessing vibration: a technical guideline</i> (DEC, 2006); or</li> </ol> <p>(b) where a negotiated agreement has been reached with affected receivers, where the prescribed noise and/or vibration levels cannot be achieved;</p> <p>(c) for the delivery of materials required by the police or other authorities for safety reasons; or</p> <p>(d) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; or</p>	Yes	Yes	Pre-Construction Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>Except as permitted by the conditions of this approval or the EPL, works will be restricted to the nominated timeframes. This is addressed in the Project Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241), which includes the Project Out of Hours Works Protocol (M4E-ES-PRC-PWD-00315).</p> <p>Both these documents were approved by DP&amp;E on 22 March 2016.</p> <p>During the reporting period, out of hours works activities have been undertaken in accordance with the conditions of this approval, the EPL and the Out of Hours Works Protocol for activities including:</p> <ul style="list-style-type: none"> <li>Utilities works</li> <li>Installation of traffic staging along the M4 Motorway,</li> <li>Construction works in close vicinity to live traffic including clearing, survey, pot holing, and geotechnical and contaminated land investigations,</li> <li>Oversized plant deliveries, and</li> <li>Long-term, temporary road closures.</li> </ul> <p>During these works specific mitigation measures were implemented including:</p> <ul style="list-style-type: none"> <li>No concrete or road sawing and rock breaking past midnight,</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(e)	construction works approved through an Out-Of-Hours Work Protocol prepared as part of the Construction Noise and Vibration Management Plan required by condition D57(b), provided the relevant council, local residents and other affected stakeholders and sensitive receivers are informed of the timing and duration at least 48 hours prior to the commencement of the works; or											<ul style="list-style-type: none"> <li>Use of quieter plant where possible, e.g. preferential use of electric or hydraulic chainsaws over petrol chainsaws,</li> <li>The use of noise blankets where possible during louder activities, and</li> <li>Use of non-tonal reversing alarms.</li> </ul>
	(f)	construction works approved through an EPL.											
Construction Noise and Vibration													
D18	(a)	<p>The Proponent must implement all reasonable and feasible noise mitigation measures with the aim of achieving the following construction noise management levels and vibration criteria:</p> <p>(a) construction noise management levels established using <i>the Interim Construction Noise Guideline</i> (DECC, 2009);</p> <p>(b) vibration criteria established using the <i>Assessing vibration: a technical guideline</i> (DEC, 2006) (for human exposure); and</p> <p>(c) the vibration limits set out in the <i>German Standard DIN 4150-3: Structural Vibration-effects of vibration on structures</i> (for structural damage).</p> <p>Any construction activities identified as exceeding the construction noise management levels and/or vibration criteria must be managed in accordance with the Construction Noise and Vibration Management Plan required by condition D57(b).</p> <p><i>Note:</i>  <i>The Interim Construction Noise Guideline identifies 'particularly annoying' activities that require the addition of 5 dB(A) to the predicted level before comparing to the construction NML.</i></p>	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>The Project Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241) (approved by DP&amp;E on 22 March 2016) outlines the general mitigation measures that will be applied to mitigate noise and vibration impacts during construction.</p> <p>It also outlines the process for developing detailed Construction Noise and Vibration Impact Statements for the works which will include tailored mitigation measures based on the different works packages and receiving catchments.</p> <p>The mitigation measures contained in the Construction Noise and Vibration Management Plan and the site and activity specific Construction Noise and Vibration Impact Statements will be implemented as required by these documents.</p>
D19	(a)	<p>Feasible and reasonable noise mitigation measures should be applied to construction activities when the following residential ground-borne noise levels are exceeded:</p> <p>(a) evening (6:00 pm to 10:00 pm) — internal <math>L_{Aeq}</math> (15 minute): 40 dB(A); and</p>	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>The Project Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241) (approved by DP&amp;E on 22 March 2016) outlines the general mitigation measures that will be</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(b)	<p>night (10:00 pm to 7:00 am) — internal L<sub>Aeq</sub> (15 minute): 35 dB(A).</p> <p>The mitigation measures should be outlined in the Construction Noise and Vibration Management Plan, including the Out-of-Hours Work Protocol, required by condition D57(b).</p>											<p>applied to mitigate noise impacts during construction.</p> <p>It also outlines the process for developing detailed Construction Noise and Vibration Impact Statements for the works which will include tailored mitigation measures based on the different works packages and receiving catchments.</p> <p>A CNVIS has been prepared for the tunnelling works and outlines feasible and reasonable mitigation measures to be applied to meet these criteria for ground borne noise, including restricting excavation methods during evening and night periods.</p>
D20		Wherever practical, piling activities that affect sensitive receivers must be undertaken using quieter alternative methods than impact or percussion piling, such as bored piles or vibrated piles.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>CSJ will consider alternative work methods, including piling, where activities may affect sensitive receivers. To date only bored piles have been installed on the project.</p> <p>The Project Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241) (approved by DP&amp;E on 22 March 2016) addresses this condition.</p>
D21		The Proponent must implement operational noise mitigation measures at receivers, or suitable temporary measures, prior to commencement of construction where feasible and reasonable, and in areas where the documents listed in conditions A2(b) and A2(c) have identified high noise impacts (including at or adjacent to construction work sites or ancillary facilities), and where existing noise barriers are to be altered.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>CSJ will implement feasible and reasonable noise mitigation measures early in the construction program. Recommended mitigation measures have been incorporated into the management measures outlined in the DP&amp;E approved NVMP (M4E-ES-PLN-PWD-00241) on 22 March 2016 ) and site specific mitigation measures have been included in the DP&amp;E approved AFMP (26 February 2016).</p> <p>Sections of permanent noise barrier have been removed at the interface between the Homebush Bbay Drive civil site (C1) and Underwood Road civil site (C3a). Temporary noise walls were constructed before this occurred, and will continue to be installed in preparation for removal of further sections of the permanent noise wall.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													No other sections of permanent noise barrier have been removed by the project.
D22		The Proponent must conduct vibration testing and monitoring to identify minimum working distances to retained heritage items to prevent cosmetic damage to these items. In the event that the vibration testing and monitoring shows that the preferred values for vibration are likely to be exceeded, the Proponent must review the construction methodology and, if necessary, implement additional feasible and reasonable mitigation measures, unless otherwise agreed to by the Secretary.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	If vibration intensive works are required within the safe working distances, vibration monitoring or attended vibration trials will be undertaken at the outset of these works to ensure that levels are within relevant criteria. Requirements for assessment and monitoring of vibration are identified in the DP&E approved NVMP (M4E-ES-PLN-PWD-00241) (22 March 2016). Vibration monitoring has been conducted at heritage items during vibration intensive works, including utility works near the Cheil Church on Concord Rd, St Lukes Church on Burton Street, and 1 Ada Street. There was one exceedance of the vibration criteria when working near 1 Ada Street, associated with a 5T excavator changing its attachment near the vibration monitor sensor. This exceedance was raised with the project vibration consultant who confirmed that the level would not have impacted the structural integrity of the property and that the construction method did not need to be reviewed.
D23		The Proponent must consult with potentially-affected community, religious, educational institutions and vibration-sensitive business and critical working areas (such as theatres, laboratories and operating theatres) to ensure that, where feasible and reasonable, noise generating construction works in the vicinity of the affected receivers are not timetabled during sensitive periods, unless other reasonable arrangements to the affected institutions are made at no cost to the affected institution.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Community consultation prior to and during the construction activities will be undertaken in accordance with the Community Communication Strategy. Where feasible and reasonable, noise-generating construction works have been avoided during sensitive periods in the vicinity of the receiver, including the completion of geotechnical works during school holidays as requested by St Mary's Catholic Primary School. These requirements are incorporated into the management measures provided in the DP&E approved NVMP



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													(M4E-ES-PLN-PWD-00241) (22 March 2016).
D24		During construction, proponents of other construction works in the vicinity of the SSI must be consulted and reasonable steps taken to coordinate works to minimise impacts on, and maximise respite for, affected sensitive receivers.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Where applicable, proponents of other construction works in the vicinity of the SSI will be consulted and reasonable steps would be undertaken to minimise impacts on sensitive receivers in accordance with the Community Communication Strategy. CSJ have consulted with the M4 Widening and have rescheduled and aligned their traffic switches to minimise traffic impacts along the M4 Motorway.
Construction Traffic Noise													
D25		The Proponent is to ensure that construction vehicle contractors operate so as to minimise any sleep disturbance impacts. Measures that could be used include toolbox talks, contracts that include provisions to deal with unsatisfactory noise performance for the vehicle and/or the operator, and specifying non-tonal movement alarms in place of reversing beepers or alternatives such as reversing cameras and proximity alarms, or a combination of these, where tonal alarms are not mandated by legislation.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Recommended management measures are identified in the DP&E approved NVMP (M4E-ES-PLN-PWD-00241) (22 March 2016) to minimise sleep disturbance impacts. CSJ's contracts with the project spoil haulage contractors include the requirements that: <ul style="list-style-type: none"> <li>All haulage trucks are fitted with non-tonal alarms (i.e. quackers),</li> <li>All works are to be undertaken in a manner which minimises noise impacts on sensitive receivers,</li> <li>Spoil contractors must comply with the project Spoil Management Plan.</li> </ul> Failure to follow these requirements could result in a breach of contract.
D26		Use of compression brakes must not be permitted for construction vehicles associated with the SSI during construction, unless in an emergency situation.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Compression brakes will not be used unless required in an emergency. This is addressed in the DP&E approved NVMP (M4E-ES-PLN-PWD-00241) (22 March 2016).
Blasting													
D27		No blasting must occur without the prior approval of the Secretary. Should blasting be required, the Proponent must prepare a Blast Management Strategy in consultation with the EPA and submit the Blast	No	Yes	Prior to blasting	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	The Blast Management Strategy (BMS) has been drafted to comply with this condition, and



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>Management Strategy to the Secretary for approval. The Blast Management Strategy must demonstrate that all blasting and associated activities will be undertaken in a manner that will not generate unacceptable noise and vibration impacts or pose a significant risk impact to residences and sensitive receptors. The Blast Management Strategy must also address the principles outlined in <i>Hazardous Industry Planning Advisory Paper No 6: Hazard Analysis</i> (Department of Planning, January 2011) and <i>Assessment Guideline: Multi-Level Risk Assessment</i> (Department of Planning and Infrastructure, May 2011) for the handling and storage of hazardous materials. Issues to be considered in the Blast Management Strategy must include, but not be limited to:</p> <p>(a) details of blasting to be performed, including location, method and justification of the need to blast;</p> <p>(b) identification of any potentially affected noise and vibration sensitive sites including heritage buildings and utilities;</p> <p>(c) establishment of appropriate criteria for blast overpressure and ground vibration levels at each category of noise sensitive site;</p> <p>(d) details of the storage and handling arrangements for explosive materials and the proposed transport of those materials to the construction site;</p> <p>(e) identification of hazardous situations that may arise from the storage and handling of explosives, the blasting process and recovery of the blast site after detonation of the explosives;</p> <p>(f) determination of potential noise and vibration and risk impacts from blasting and appropriate monitoring and best management practices to minimise and manage any blasting impacts and assess compliance with conditions D33 and D34; and</p> <p>(g) community consultation procedures.</p>											<p>CSJ is examining blasting options to finalise the document.</p> <p>Prior to any blasting occurring the BMS will need to be approved by the Secretary and the NSW EPA as part of an EPL variation to permit blasting on the project.</p> <p>Compliance with this condition will be reported in the QCCRs as outlined in Section 2.3 of this QCCR.</p>
D28		The vibration levels for blasting activities, including both above ground and underground work, must meet the requirements of conditions D33 and D34.	No	Yes	Prior to and during blasting	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	The Blast Management Strategy (BMS) has been drafted to comply with this condition, and CSJ is examining blasting options to finalise the document.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													Prior to any blasting occurring the BMS will need to be approved by the Secretary and the NSW EPA as part of an EPL variation to permit blasting on the project. Compliance with this condition will be reported in the QCCRs as outlined in Section 2.3 of this QCCR.
D29		<p>Blasts must be limited to an average of one single detonation in any one day, per sensitive receiver, and a maximum of six per week per sensitive receiver, unless otherwise agreed by the EPA through consultation on the Blast Management Strategy.</p> <p><i>Note:</i> For the purposes of this condition a single detonation may involve a number of individual blasts fired in quick succession in a discrete area.</p>	No	Yes	Prior to and during blasting	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	<p>The Blast Management Strategy (BMS) has been drafted to comply with this condition, and CSJ is examining blasting options to finalise the document.</p> <p>Prior to any blasting occurring the BMS will need to be approved by the Secretary and the NSW EPA as part of an EPL variation to permit blasting on the project. Compliance with this condition will be reported in the QCCRs as outlined in Section 2.3 of this QCCR.</p>
D30		<p>For any section of tunnel construction where blasting is proposed, a series of initial trials at reduced scale must be conducted prior to production blasting to determine site-specific blast response characteristics and to define allowable blast sizes to meet the airblast overpressure and ground vibration limits in conditions D33 and D34.</p>	No	Yes	Prior to and during blasting	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	<p>The Blast Management Strategy (BMS) has been drafted to comply with this condition, and CSJ is examining blasting options to finalise the document.</p> <p>Prior to any blasting occurring the BMS will need to be approved by the Secretary and the NSW EPA as part of an EPL variation to permit blasting on the project. Compliance with this condition will be reported in the QCCRs as outlined in Section 2.3 of this QCCR.</p>
D31		<p>Blasting associated with the project must only be undertaken during the following hours:</p> <ul style="list-style-type: none"> <li>(a) 9:00 am to 5:00 pm, Monday to Friday, inclusive;</li> <li>(b) 9:00 am to 1:00 pm Saturday; and</li> <li>(c) at no time on Sunday or on a public holiday, or as otherwise allowed for by the EPA and outlined in the Blast Management Strategy.</li> </ul> <p>This condition does not apply in the event of a direction from police or other relevant authority for safety or emergency reasons to</p>	No	Yes	Prior to and during blasting	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	<p>The Blast Management Strategy (BMS) has been drafted to comply with this condition, and CSJ is examining blasting options to finalise the document.</p> <p>Prior to any blasting occurring the BMS will need to be approved by the Secretary and the NSW EPA as part of an EPL variation to permit blasting on the project. Compliance with this condition will be reported in the QCCRs as outlined in Section 2.3 of this QCCR.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence						
			Stage 1	Stage 2															
		avoid loss of life, property loss and/or to prevent environmental harm.																	
D32		Where vibration levels generated by blasting exceed the acceptable vibration dose values, feasible and reasonable mitigation measures must be considered and implemented.	No	Yes	Prior to and during blasting	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	The Blast Management Strategy (BMS) has been drafted to comply with this condition, and CSJ is examining blasting options to finalise the document.  Prior to any blasting occurring the BMS will need to be approved by the Secretary and the NSW EPA as part of an EPL variation to permit blasting on the project.  Compliance with this condition will be reported in the QCCRs as outlined in Section 2.3 of this QCCR.						
D33		Airblast overpressure generated by blasting associated with the SSI must not exceed the criteria specified in Table 2 when measured at the most affected residence or other sensitive receiver.  Table 2 - Airblast Overpressure Criteria <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Airblast overpressure (dB(Lin Peak))</th> <th style="width: 70%;">Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>115</td> <td>5% of total number of blasts over a 12 month period</td> </tr> <tr> <td>120</td> <td>0%</td> </tr> </tbody> </table>	Airblast overpressure (dB(Lin Peak))	Allowable exceedance	115	5% of total number of blasts over a 12 month period	120	0%	No	Yes	Prior to and during blasting	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	The Blast Management Strategy (BMS) has been drafted to comply with this condition, and CSJ is examining blasting options to finalise the document.  Prior to any blasting occurring the BMS will need to be approved by the Secretary and the NSW EPA as part of an EPL variation to permit blasting on the project.  Compliance with this condition will be reported in the QCCRs as outlined in Section 2.3 of this QCCR.
Airblast overpressure (dB(Lin Peak))	Allowable exceedance																		
115	5% of total number of blasts over a 12 month period																		
120	0%																		
D34		Ground vibration generated by blasting associated with the SSI must be limited for human comfort to the criteria specified in Table 3 when measured at the most affected residence or other sensitive receiver.  Table 3 - Ground Vibration Limits for Human Comfort (AS 2187.2) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Receiver</th> <th style="width: 30%;">Type of blasting operations</th> <th style="width: 50%;">Peak component particle velocity (mm/s)</th> </tr> </thead> <tbody> <tr> <td>Sensitive site*</td> <td>Operations lasting longer than 12 months</td> <td>5 mm/s for 95% blasts per year 10 mm/s</td> </tr> </tbody> </table>	Receiver	Type of blasting operations	Peak component particle velocity (mm/s)	Sensitive site*	Operations lasting longer than 12 months	5 mm/s for 95% blasts per year 10 mm/s	No	Yes	Prior to and during blasting	TBC	No	N/A	N/A	N/A	CSJ	Not yet triggered	The Blast Management Strategy (BMS) has been drafted to comply with this condition, and CSJ is examining blasting options to finalise the document.  Prior to any blasting occurring the BMS will need to be approved by the Secretary and the NSW EPA as part of an EPL variation to permit blasting on the project.  Compliance with this condition will be reported in the QCCRs as outlined in Section 2.3 of this QCCR.
Receiver	Type of blasting operations	Peak component particle velocity (mm/s)																	
Sensitive site*	Operations lasting longer than 12 months	5 mm/s for 95% blasts per year 10 mm/s																	





Ref	Sub-ref	CoA			Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence		
					Stage 1	Stage 2											
			or more than 20 blasts	maximum unless agreement is reached with the occupier that a higher limit may apply													
		Sensitive site*	Operations lasting for less than 12 months or less than 20 blasts	10 mm/s maximum unless agreement is reached with occupier that a higher limit may apply													
		Occupied non-sensitive sites, such as factories and commercial premises	All blasting	25 mm/s maximum unless agreement is reached with occupier that a higher limit may apply. For sites containing equipment sensitive to vibration, the vibration should be kept below manufacturer's specifications or levels that can be shown to adversely affect the equipment operation													
<p>Notes:</p> <ul style="list-style-type: none"> <li>A sensitive site includes houses and low rise residential buildings, theatres, schools, and other similar buildings occupied by people.</li> <li>The recommendations in Table J4.5(A) of AS 2187.2 – 2006</li> </ul>																	



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<i>Explosives – Storage and Use – Use of Explosives are intended to be informative and do not override statutory requirements with respect to human comfort limits set by various authorities. They should be read in conjunction with any such statutory requirements and with regard to their respective jurisdictions.</i>											
HERITAGE													
Non-Aboriginal Heritage Items and Conservation Areas													
D35		<p>Prior to the commencement of construction in proximity to, or affecting, a heritage item or contributory item in a heritage conservation area, the Proponent must complete the archival recordings, including photographic recording of the heritage items, unless otherwise agreed by the Secretary.</p> <p>The archival recording must be undertaken by a qualified and experienced heritage consultant, in accordance with <i>the How to Prepare Archival Records of Heritage Items (2003)</i> guidelines issued by the NSW Heritage Council. Within 12 months of completing the archival recording, or as otherwise agreed by the Secretary, the Proponent must submit a Heritage and Contributory Item Archival Recording and Research Report containing the archival and photographic recordings and historical research, to the Department, the NSW Heritage Council, the local library, the local Historical Society in the respective local government area(s) and UrbanGrowth NSW.</p>	Yes	Yes	Prior to construction in proximity to or affecting heritage item or contributory item in a heritage conservation area	12 months after completion of archival recording.	No	12 months after completion of archival recording.	N/A	N/A	CSJ	Open	<p>The process for archival recording is outlined in the Heritage Management Procedure and the HARD and has been undertaken in accordance with the relevant guidelines. These requirements are identified in Section 5 of the DP&amp;E approved HMP (M4E-ES-PLN-PWD-00238) (24 March 2016) and the safeguards listed in Section 6 and Section 7.1 of the HMP.</p> <p>CSJ has engaged a heritage specialist and professional photographer to undertake the archival recording as required by this condition.</p> <p>Archival recording commenced on in March 2016 and was completed in June 2016.</p>
D36	(a)	<p>The Proponent must complete archival recordings for any impacted part of the heritage conservation area prior to the commencement of construction within a respective heritage conservation area. Consultation with the NSW Heritage Council (or its delegate), the National Trust and the relevant council is to be carried out to determine the objectives and approaches to the archival recording. The archival recording of heritage conservation areas is to include, but not be limited to:</p> <p>(a) comprehensive photographic recording of buildings, structures, open spaces, public</p>	Yes	Yes	Prior to construction within a heritage conservation area	12 months after completion of archival recording.	No	12 months after completion of archival recording.	N/A	N/A	CSJ	Open	<p>The process for archival recording is outlined in the Heritage Management Procedure and has been undertaken in accordance with the relevant guidelines. These requirements are identified in Section 5 of the DP&amp;E approved HMP (M4E-ES-PLN-PWD-00238 – 24 March 2016) and the safeguards listed in Section 6 and Section 7.1 of the HMP.</p> <p>CSJ has engaged a heritage specialist and professional</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(b) (c)	<p>realm, architecture, urban design, landscaping and streetscapes;</p> <p>surveying and mapping of land use arrangements, street patterns and layouts, subdivision layouts, landscape design and street tree plantings; and</p> <p>any other feasible recording requested and agreed to following consultation with the aforementioned stakeholders.</p> <p>The archival recording of heritage conservation areas must be undertaken by a qualified and experienced heritage consultant, and should be undertaken in a manner generally reflective of the <i>How to Prepare Archival Records of Heritage Items (2003)</i> guidelines issued by the NSW Heritage Council. Within 12 months of completing the archival recording, or as otherwise agreed by the Secretary, the Proponent must submit a Heritage Conservation Area Archival Recording and Research Report, for each relevant heritage conservation area, containing the archival and photographic recordings, mapping and historical research, to the Department, the NSW Heritage Council, the local library, the local Historical Society in the respective local government area(s) and UrbanGrowth NSW.</p>											<p>photographer to undertake the archival recording as required by this condition.</p> <p>CSJ has provided the objectives and approaches for archival recording to the NSW Heritage Council, National Trust, Canada Bay Council and Ashfield on 11 April 2016 for review and comment. Responses were received from Heritage Division (as delegate of the NSW Heritage Council), Ashfield Council and the National Trust.</p> <p>Comments from National Trust recommended video recording of affected streetscapes in heritage conservation areas. Video recording has been completed in the nominated area in May 2016.</p> <p>Photographic recording of properties commenced in April 2016, and was completed in June 2016.</p> <p>Photographic recording of streetscapes commenced in March 2016 and was completed in June 2016.</p>
D37	(a)	<p>Prior to construction within a Historical Archaeological Management Unit (HAMU), the Proponent must engage a suitably qualified archaeologist whose experience complies with the NSW Heritage Council's <i>Criteria for Assessment of Excavation Directors</i> (July, 2011) (referred to as the Excavation Director) to oversee and advise on matters associated with historic archaeology and to prepare an Archaeological Research Design and Excavation Methodology. The Archaeological Research Design and Excavation Methodology is to be submitted to the Heritage Council of NSW for review and comment prior to finalisation and must be approved by the Secretary. The Archaeological Research Design and Excavation Methodology must:</p> <p>be consistent with the <i>NSW Heritage Council's Archaeological Assessments Guideline</i> (1996);</p>	Yes	Yes	Pre-Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	<p>CSJ has engaged a heritage specialist to fulfil this condition. This is identified in Section 7.3 of the DP&amp;E approved HMP (M4E-ES-PLN-PWD-00238 – 24 March 2016).</p> <p>The archaeologist has prepared a Historical Archaeological Research Design (HARD) that has been reviewed by the Heritage Council of NSW and relevant Councils. The HARD is an annexure to the HMP and has been lodged to and approved by the Secretary and was approved on 24 March 2016.</p> <p>During the reporting period CSJ have undertaken excavation works in the vicinity of archaeological sites in the following locations, with the Excavation Director present:</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(b) (c) (d)	<p>provide for the detailed analysis of any heritage items discovered during the investigations;</p> <p>include management options for discovered heritage items (including options for relocation and display); and</p> <p>if the findings of the investigations are significant, provide for the preparation and implementation of a heritage interpretation plan.</p> <p>Where excavation works are required in the vicinity of potential archaeological sites, the Excavation Director must be present to advise on archaeological issues and oversee excavation works. The Excavation Director must be given the authority to advise on the duration and extent of oversight required during excavation.</p>											<ul style="list-style-type: none"> <li>Gipps Street (HAMU8), Forster Street, Loftus Street, Sydney Street (HAMU4 &amp; 5), Edward Street, Concord Lane (HAMU7) and Carrington Street (HAMU7), Concord</li> <li>Short Street East (HAMU3), Ismay Avenue (HAMU3) and Powell Street (HAMU3), Homebush,</li> <li>Within the Underwood Road tunnel site (HAMU3),</li> <li>Parramatta Road (east and west of Wattle Street), Haberfield (HAMU9 &amp; 10), and</li> <li>Reg Coady Reserve, Haberfield (HAMU10).</li> </ul>
D38		<p>In the event that archaeological relics are discovered during construction, all work must cease in the affected area and the Excavation Director must be notified and attend the site to assess the finds, identify their significance level and provide mitigation advice according to the significance level and the impact proposed. In the event that the relics are identified as being of State or local significance, the NSW Heritage Council must be notified in writing in accordance with section 146 of the <i>Heritage Act 1977</i>. An Archaeological Relics Management Plan specific to the relics or site encountered is to be prepared in consultation with the NSW Heritage Council which is to outline all feasible and reasonable measures to be implemented to avoid and/or minimise harm to the State or locally significant heritage items. Works within the vicinity of the find must not recommence without the approval of the NSW Heritage Council. The Proponent must notify the Secretary in writing of any such encounter of an archaeological relic triggering this condition and must also notify the Secretary of the outcome of consultation with the NSW Heritage Council.</p>	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ; WCXM4 Co	Open	<p>During the reporting period for this QCCR, CSJ have uncovered eight potential heritage finds, with the Unexpected Heritage Finds Procedure (Annexure C to the DP&amp;E approved HMP (M4E-ES-PLN-PWD-00238 – 24 March 2016)) implemented.</p> <p>Of these finds three were identified as being of local significance:</p> <ul style="list-style-type: none"> <li>Telford Road within Concord and Homebush found during utilities works,</li> <li>A brick pit at Underwood Road tunnel site (C3b), and</li> <li>Cisterns at the Parramatta Road civil site (C10).</li> </ul> <p>In each of these instances the NSW Heritage Council were notified of the find and an Archaeological Relics Management Plan was developed and provided to the Heritage Council. Through the notification process, CSJ advised the Heritage Council of the proposed mitigation measures and process to manage the find. With Heritage Council approval the works recommenced.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
D39		In the event that archaeological relics are discovered, within 12 months of completing all archaeological investigations, unless otherwise agreed by the Secretary, the Proponent must prepare an Excavation Report containing the findings of any excavations, including artefact analysis and the identification of a final repository of any finds. The Excavation Report must be submitted to the Department, the NSW Heritage Council, and the local library and the local Historical Society in the relevant local government area(s). A copy of the Excavation Report must be retained with the relics at all times.	Yes	Yes	Construction	12 months after archaeological investigations	No	12 months after archaeological investigations	N/A	N/A	CSJ	Not yet triggered	The requirement for an Excavation Report in accordance with this condition is outlined in Section 7.1 of the DP&E approved HMP (M4E-ES-PLN-PWD-00238 – 24 March 2016). The brick pit at the Underwood Road tunnel site (C3b) was discovered during archaeological investigations on 13 April 2016, therefore an Excavation Report will be provided prior to April 2017.
Aboriginal Heritage													
D40		The Proponent must take all reasonable steps so as not to harm, modify or otherwise impact any Aboriginal heritage item associated with the SSI.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	The approved Project EIS did not identify any known areas or items of Aboriginal Heritage significance within the project footprint. Impacts to known heritage (Aboriginal or non-Aboriginal) or heritage conservation areas (inside or outside the SSI footprint) will be avoided during the construction phase. This is addressed in the safeguards listed in the DP&E approved HMP (M4E-ES-PLN-PWD-00238 – 24 March 2016). Any activities that extend beyond the approved boundary would consider the potential to impact on any Aboriginal heritage item. The assessment of changes (that may extend beyond the approved footprint) is summarised in the DP&E approved CEMP (M4E-ES-PLN-PWD-00233 - 22 March 2016). Measures to minimise impact to Aboriginal heritage items are described in the HMP and in particular in the Unexpected Heritage Finds Procedure.
D41		Where previously unidentified Aboriginal objects are discovered during construction of the SSI, all work should stop in the affected area and a suitably qualified and experienced Aboriginal heritage expert should be contacted to provide specialist heritage advice. The measures to consider and manage this process must be specified	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Impacts to known heritage (Aboriginal or non-Aboriginal) or heritage conservation areas (inside or outside the SSI footprint) will be avoided during the construction phase. This is addressed in the safeguards listed in the DP&E approved HMP



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		in the Construction Heritage Management Plan required by condition D57(c) and, where relevant, include registration in the OEH's Aboriginal Heritage Information Management System (AHIMS) register.											(M4E-ES-PLN-PWD-00238 – 24 March 2016). Any activities that extend beyond the approved boundary would consider the potential to impact on any Aboriginal heritage item. The assessment of changes (that may extend beyond the approved footprint) is summarised in the DP&E approved CEMP (M4E-ES-PLN-PWD-00233 - 22 March 2016). Measures to minimise impact to Aboriginal heritage items are described in the HMP and in particular in the Unexpected Heritage Finds Procedure. In the event that unidentified Aboriginal objects were discovered, works would stop and the project's Unexpected Heritage Finds Procedure would be implemented. No previously unidentified Aboriginal objects have been discovered during the reporting period which this QCCR applies.
<b>TRANSPORT AND ACCESS</b>													
D42		Unless otherwise approved by the Secretary, heavy vehicle movements associated with the construction of the SSI (including but not limited to spoil haulage, materials delivery and access to and from ancillary construction compounds) are not permitted on local roads. When seeking the Secretary's approval, justification must be provided as to why use of the local road(s) is the only feasible and reasonable route.	Yes	Yes	Construction	Ongoing	Yes	March and April 2016	March and April 2016	March and April 2016	CSJ	Open	The DP&E approved TAMP (M4E-ES-PLN-PWD-00235) (15 April 2016) identifies heavy vehicle movements (including on local roads) required during construction activities and the DP&E approved AFMP (M4E-ES-PLN-PWD-000235) (13 May 2016) identifies heavy vehicle movements (including on local roads) required during establishment activities. The project requested approval from DP&E on 22 July 2016 for heavy vehicles to use Park Road, Homebush during construction works. The request will be incorporated into a revised version of the TAMP, which will be provided to DP&E for approval.
D43		Construction vehicles (including staff vehicles) associated with the SSI must be managed so that:	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	The management of construction vehicles is addressed by the DP&E approved TAMP (M4E-ES-



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(a) (b) (c) (d)	parking or queuing on public roads is minimised; idling and queuing in local residential streets is minimised, where practicable; heavy vehicles adhere to the nominated haulage routes identified in the Construction Traffic and Access Management Plan required under condition D57(a); and access and egress from construction compounds is undertaken in a safe and lawful manner, with particular regard be given to this compounds located in the vicinity of schools and the potential implementation of traffic management or signalisation, in consultation with the relevant council.											PLN-PWD-00235 – 15 April 2016) and NVMP (M4E-ES-PLN-PWD-00241 – 22 March 2016) for associated noise management measures. Project inductions and the Drivers Code of Conduct for the project, also provide additional measures to address these requirements. Toolbox talks have also been completed on parking.
D44		Safe pedestrian and cyclist access through and around worksites must be maintained during construction. In circumstances where pedestrian and cyclist access is restricted due to construction activities, a satisfactory alternate route must be provided and signposted, including provision of footpaths where pedestrian access is reliant on grassed verges.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Maintenance of pedestrian and cyclist access, including the provision of alternate routes, is addressed by the DP&E approved TAMP (M4E-ES-PLN-PWD-00235 – 15 April 2016). During the reporting period for this QCCR, the following pedestrian and cyclists were impacted by the project for more than one shift, with alternative routes provided in accordance with traffic management plans. : <ul style="list-style-type: none"><li>• M4 Motorway cycleway,</li><li>• Reserve between Concord Road and Ada Street, and</li><li>• Parramatta Road between Luke Avenue and Taylor Street.</li></ul>
D45		Access to all properties must be maintained during construction, where feasible and reasonable, unless otherwise agreed by the relevant property owner or occupier. Any access physically affected by the SSI must be reinstated to at least an equivalent standard, unless agreed with by the property owner.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Access to all properties has been maintained during the reporting period for the QCCR. Any access physically affected by the SSI will be reinstated to at least an equivalent standard, unless agreed by the property owner. Changes to access as a result of the project are addressed in the DP&E approved TAMP (M4E-ES-PLN-PWD-00235 – 15 April 2016). Traffic control plans and staging diagrams will provide details for



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
any access arrangement during construction. Notification to property owners/occupiers will be undertaken prior to changed access arrangements in accordance with the DP&E approved CCS.													
<b>Spoil Management</b>													
D46		<p>Prior to commencement of any tunnelling works, the Proponent must prepare and implement a Spoil Management Plan for the SSI. The Spoil Management Plan is to be developed, in consultation with EPA and the relevant council(s), for the approval of the Secretary. The Spoil Management Plan must incorporate detailed information on the handling and transport of spoil generated during construction of the SSI, and provide information regarding each of the broad parameters specified in the documents listed in conditions A2(b) and (c).</p> <p>The Spoil Management Plan is to be prepared separate to, but consistent with, the Construction Traffic and Access Management Plan required under condition D57(a).</p>	No	Yes	Construction	TBC	No	N/A	N/A	N/A	CSJ	Open	<p>The Project Spoil Management Plan (M4E-PM-PLN-PWD-00202) was approved by DP&amp;E on 30 June 2016, prior to the commencement of tunnelling works which started on 16 July 2016.</p> <p>To date, the project has generated approximately 95,000T of spoil which has been disposed at the following locations:</p> <ul style="list-style-type: none"> <li>• ADI, St Mary's</li> <li>• Stockland Marsden Park</li> <li>• Schofields</li> <li>• Kemps Creek</li> <li>• Brandown Pty Ltd</li> <li>• SITA</li> <li>• Blacktown Waste Services</li> <li>• Dial a dump – Genesis</li> <li>• Builders Recycling Operations (Chester Hill)</li> <li>• Banksmeadow Recycling</li> <li>• Gow Street Recycling Centre.</li> </ul> <p>Spoil was also reused at the Concord Road tunnel site as part of establishment earthworks and at Underwood Road civil site for the construction of a piling platform.</p>
<b>BIODIVERSITY</b>													
D47		The clearing of native vegetation must be minimised with the objective of reducing impacts to any threatened species, populations and ecological communities to the greatest extent practicable. Impacted vegetation must be rehabilitated with endemic species (in the first instance) and	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	The clearing of native vegetation will be minimised through design and construction where practicable. The avoidance of vegetation during the establishment of ancillary compounds is addressed in the DP&E approved AFMP (M4E-ES-





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		locally native species to the greatest extent practicable.											<p>PLN-PWD-00235 – 13 May 2016).</p> <p>Site Environmental Plans will identify areas of sensitive vegetation and habitat to be avoided during construction. Additional opportunities to avoid vegetation clearance would be investigated throughout construction, with the following opportunities identified during the reporting period:</p> <ul style="list-style-type: none"> <li>• Wattle Street civil site proposed a realigned driveway and footpath on Walker Ave to avoid impacts to street trees,</li> <li>• Parramatta Road civil site slightly changed the alignment of noise wall to remove need to prune or remove tree,</li> <li>• Cintra Park tunnel team moved the noise wall to retain trees along the eastern boundary,</li> <li>• Concord Road tunnel team have retained heritage trees along northern boundary of the site at Sydney Street by shifting the site hoarding,</li> <li>• Pomeroy Street civil site has retained the majority of trees in the compound,</li> <li>• Underwood Road civil site retained trees along the M4 Motorway eastbound batter, and</li> <li>• The utilities team have used vacuum trucks to retain trees on Loftus Street, Queen Lane, and Underwood Rod, and selected an underbore construction method at Wattle Street to retain trees within Reg Coady reserve.</li> </ul> <p>Efforts to retain vegetation will continue throughout the design and construction phase where practicable.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													Rehabilitation requirements are identified in the FFMP and will be detailed in the UDLP.
Pre-Clearing Surveys													
D48		Prior to construction, pre-clearing surveys and inspections for threatened species, populations and ecological communities must be undertaken to confirm the on-site location of those entities. The surveys and inspections, and any subsequent relocation of species and associated management/offset measures, must be undertaken under the guidance of a suitably qualified and experienced ecologist. Methodologies must be incorporated into the Construction Flora and Fauna Management Plan required under condition D57(d). The agreement of OEH or DPI, whichever is the relevant agency, is required for any proposed amendments to the location or reclassification of threatened species, populations and ecological communities.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Pre-clearing surveys have been conducted for the project to determine the presence of actual or potential threatened species, populations, ecological communities or other significant habitat. This is addressed in the DP&E approved Flora and Fauna Management Plan (FFMP). All clearing has been in accordance with the CSJ Vegetation Clearance Procedure and the Fauna Spotter Catcher procedure. The FFMP identifies the requirement for pre-clearing surveys and inspections. To date, no threatened species, populations and ecological communities have been identified on the project.
HAZARDS AND RISK													
D49	(a) (b) (c)	Dangerous goods, as defined by the Australian Dangerous Goods Code, must be stored and handled strictly in accordance with:  all relevant Australian Standards; for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume, within the bund; and the <i>Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin</i> (EPA, 1997).  In the event of an inconsistency between the requirements listed from (a) to (c) above, the most stringent requirement must prevail to the extent of the inconsistency.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Annexure B to the DP&E Approved CEMP (M4E-ES-PLN-PWD-000233 – 22 March 2016) identifies relevant legislation to the project which includes dangerous goods and hazardous substances legislation. The relevant requirements for the storage and handling of dangerous goods is addressed by the DP&E approved SWMP (M4E-ES-PLN-PWD-00242 – 23 March 2016).
PROPERTY AND LANDUSE													
D50		The Proponent must provide boundary screening within all construction sites that adjoin or are adjacent to residential and/or commercial properties, consistent with the surrounding context, in consultation with affected property owners.	Yes	Yes	Establishment	Ongoing	No	N/A	N/A	N/A	CSJ	Open	Boundary screening will be installed within ancillary facilities adjoining or adjacent to residential and/or commercial properties. This is addressed in the AFMP. Temporary acoustic barriers may be incorporated into



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
													<p>the boundary screening as required. Temporary acoustic barriers are addressed in the NVMP and the detailed design and layout will be specified in the site-specific CNVIS to be prepared under the NVMP.</p> <p>Prior to the establishment of ancillary facilities, Community Relations team undertook consultation with residential and commercial properties that adjoin or are adjacent to ancillary facilities, including door knocking residents impacted by the ancillary facilities, letter box drops and community updates, as applicable.</p> <p>CSJ also consulted on the colour used on noise barriers and site hoarding has been selected via consultation with the community who asked to note their preferred colour.</p>
<b>ANCILLARY FACILITIES</b>													
D51		<p>Prior to the establishment of the ancillary facilities described in the documents listed in conditions A2(b) and A2(c), the Proponent must prepare and implement an Ancillary Facilities Management Plan which outlines the environmental management practices and procedures for the establishment and operation of the ancillary facilities. The Ancillary Facilities Management Plan must be prepared in consultation with the EPA and the relevant council and submitted to the Secretary for approval. The Ancillary Facilities Management Plan must detail the management of these ancillary facilities, and include, but not be limited to:</p> <p>(a) a description of each ancillary facility (including a site layout plan), its components and details of the existing environment on and in the vicinity of the site;</p> <p>(b) details of the activities to be carried out at each facility, including the hours of operation, staging of operation and predicted date of commissioning;</p> <p>(c) a description of the plant, equipment and materials to be used and/or stored on each site, including dangerous and hazardous goods;</p>	Yes	Yes	Construction	Ongoing	Yes	Stage 1: 12/02/2016 Stage 2: Pending	Stage 1: 29/02/2016 Stage 2: Pending	Stage 1: 26/02/2016 Stage 2: Pending	CSJ	Open	<p>The Stage 1 Project Ancillary Facilities Management Plan (M4E-ES-PLN-PWD-00235) was approved by DP&amp;E on 26 February 2016. Its approval included the following sites, as listed in the documents in A2(b) and A2(c) of the planning approval:</p> <ul style="list-style-type: none"> <li>• Homebush Bay Drive civil site (C1);</li> <li>• Underwood Road tunnel site (C3); and</li> <li>• Cintra Park tunnel site (C6).</li> </ul> <p>A Revision of the Ancillary Facilities Management Plan (M4E-ES-PLN-PWD-00235) was approved by DP&amp;E on 13 May 2016, and included the following remaining site: as listed in the documents in A2(b) and A2(c) of the planning approval, these being:</p> <ul style="list-style-type: none"> <li>• Pomeroy Street civil site (C2);</li> <li>• Powells Creek civil site (C4);</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(d)	a summary of the potential environmental impacts associated with the establishment and operation of the facility;											<ul style="list-style-type: none"> <li>Concord Road civil and tunnel site (C5);</li> <li>Northcote Street tunnel site (C7);</li> <li>Wattle Street and Walker Avenue civil site (C9); and</li> <li>Parramatta Road eastern civil site (C10),</li> </ul> The Parramatta Road ventilation facility site (C8) was combined with the Wattle Street and Walker Avenue civil site (C9).
	(e)	details of the mitigation, monitoring and management procedures specific to each facility that would be implemented to minimise environmental and amenity impacts or, where this is not possible, feasible and reasonable measures to offset these impacts;											
	(f)	a description of how the management and mitigation measures set out in the documents listed in conditions A2(b) and A2(c) will be implemented on each site, and if not, justification for any departures from those management and mitigation measures;											
	(g)	in the case of the construction compound at Cintra Park, Concord, details on the procedures and management protocols to be implemented on occasions when Concord Oval is in use for training or sporting events;											
	(h)	identification of the timing for the completion of site activities at each facility and how each site will be decommissioned (including any necessary rehabilitation); and											
	(i)	mechanisms for the monitoring, review and amendment of the Ancillary Facilities Management Plan.											
		In considering the approval of the Ancillary Facilities Management Plan, the Secretary will take into account the Proponent's response to public authority and relevant council comments on the plan.  The Proponent must update the Ancillary Facilities Management Plan to incorporate the site establishment and operation practices required for any additional ancillary facilities approved by the Secretary under condition D53.  No construction works are to be undertaken on the ancillary facility sites prior to approval of the Construction Environment Management Plan required under condition D56.											
D52		Other than ancillary facilities described in the documents listed in conditions A2(b) and A2(c), or those ancillary facilities approved by the Secretary under condition D53, or allowed under condition D54, the location of	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	The Project Ancillary Facilities Management Plan (M4E-ES-PLN-PWD-00235) approved by DP&E on 26 February 2016 includes at Section 3.2 the processes that



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(a) through (k)	ancillary facilities must comply with the following locational criteria: (a) be located more than 50 metres from a waterway; (b) be located within or adjacent to land where the SSI is being carried out; (c) have ready access to the road network; (d) be located to minimise the need for heavy vehicles to travel on local streets and/or through residential areas; (e) be sited on relatively level land; (f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant); (g) not require vegetation clearing beyond that already required by the SSI; (h) not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the SSI; (i) not unreasonably affect the land use of adjacent properties; (j) be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and (k) provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.											relate to approval of facilities in accordance with the requirements of this condition. Additional ancillary facilities which were identified during the reporting period were not approved under this condition, however an assessment against these conditions was included the Site Specific Ancillary Facilities Management Plans and Minor Ancillary Facilities Application.
D53	(a) through (b)	Prior to establishment of any ancillary facility not described in the documents listed in conditions A2 (b) and A2(c) and which does not meet the locational criteria in condition D52, the Proponent must prepare and implement a Site-Specific Ancillary Facilities Management Plan. The Site-Specific Ancillary Facilities Management Plan must be prepared for the approval of the Secretary, and include: (a) a detailed description of the ancillary facility, including proposed use and access arrangements; (b) a review of the environmental and social impacts of the ancillary facility, including an	Yes	Yes	Construction	Ongoing	Yes	Dobroyd Parade Utility Support site: 08/06/2016  Traffic Control Room at 99 Concord Road: 01/06/2016	Dobroyd Parade Utility Support site: 15/07/2016  Traffic Control Room at 99 Concord Road: 14/07/2016	Dobroyd Parade Utility Support site: 19/07/2016  Traffic Control Room at 99 Concord Road: 22/07/2016	CSJ	Open	During the reporting period two additional ancillary facilities were identified, with Site Specific Ancillary Facilities Management Plans prepared and lodged with DP&E for approval: <ul style="list-style-type: none"> <li>Dobroyd Parade Utility Support site, lodged with DP&amp;E on 8 June 2016 and approved on 19 July 2016, and</li> <li>Traffic Control Room at 99 Concord Road, lodged with DP&amp;E on 1 June 2016, and approved on 22 July 2016.</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(c)	analysis of compliance with the locational criteria specified in condition D52;											
	(d)	measures to avoid, mitigate and manage environmental and social impacts associated with the ancillary facility; and demonstration that, with the measures proposed in accordance with (c), the impacts of the ancillary site are consistent with – i. the overall project impacts described in documents listed in conditions A2(b) and A2(c) , and ii. all relevant conditions of this approval.											
D54	(a) (b) (c)	The Secretary's approval is not required for minor ancillary facilities (e.g. lunch sheds, office sheds, and portable toilet facilities, etc.) that do not comply with the criteria set out in condition D52 of this approval and which: are located within an active construction zone within the approved SSI footprint; and have been assessed by the Environmental Representative to have – i. minimal amenity impacts to surrounding residences, with consideration to matters such as noise and vibration impacts, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and ii. minimal environmental impact in respect to waste management, and no impacts on flora and fauna, soil and water, and heritage beyond those approved for the SSI; and have environmental and amenity impacts that can be managed through the implementation of environmental measures detailed in the Construction Environment Management Plan required under condition D56.	Yes	Yes	Construction	Ongoing	No	N/A	N/A	N/A	CSJ	Open	The Project Ancillary Facilities Management Plan (M4E-ES-PLN-PWD-00235) approved by DP&E on 26 February 2016 includes at Section 3 the processes that relate to approval of minor facilities in accordance with the requirements of this condition. The following minor ancillary facilities have been approved by the Environmental Representative to date: <ul style="list-style-type: none"> <li>28 Edward Street, Concord – property to be used as Project Traffic Control Room (approved 21/04/16),</li> <li>2-4 Wattle Street, Haberfield – property to be used as site offices and amenities (approved 21/04/16),</li> <li>195 Parramatta Road – property to be used as site offices and amenities (approved 03/05/16),</li> <li>18 Walker Avenue – property to be used as site offices (approved 03/05/16),</li> <li>44 Martin Street – property to be used a site offices (approved 27 May 2016), and</li> <li>Reg Coady Reserve – area to be used for laydown (approved 15 June 2016).</li> </ul>
D55		All ancillary facilities and supporting infrastructure must be rehabilitated to at	Yes	Yes	Post-construction	Ongoing	No	N/A	N/A	N/A	CSJ	Not yet triggered	This condition relates to the post-construction phase of the project,



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		least their pre-construction condition or better, unless otherwise agreed by the landowner where relevant. Where the rehabilitated site is residual land then condition B57 applies.											and will be reported upon in the future QCCRs as referenced in in Section 2.3 of this QCCR.
CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN													
D56		<p>Prior to the commencement of construction, or as otherwise agreed by the Secretary, the Proponent must prepare and implement a Construction Environmental Management Plan (CEMP) for the SSI. The CEMP is to be prepared in consultation with the EPA, OEH, and the relevant council. The CEMP must outline the environmental management practices and procedures that are to be followed during construction. The CEMP is to be prepared in accordance with <i>the Guideline for the Preparation of Environmental Management Plans</i> (Department of Infrastructure, Planning and Natural Resources, 2004). The CEMP must include, but not be limited to:</p> <p>(a) a description of activities to be undertaken during construction of the SSI (including staging and scheduling);</p> <p>(b) statutory and other obligations that the Proponent is required to fulfil during construction, including approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies;</p> <p>(c) a description of the roles and responsibilities for relevant employees involved in the construction of the SSI, including relevant training and induction provisions for ensuring that employees, including contractors and sub-contractors, are aware of their environmental and compliance obligations under these conditions of approval;</p> <p>(d) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase; and</p> <p>(e) details of how environmental performance would be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from the staging of the construction of the SSI). In particular, the</p>	Yes	Yes	Pre-Construction	22/03/2016	Yes	29/02/2016	17/03/2016	22/03/2016	CSJ	Open	<p>Construction Environmental Management Plan (CEMP M4E-ES-PLN-PWD-00233), and sub-plans, approved by DP&amp;E in March and April 2016 fulfil this condition.</p> <p>Note the approval of the CEMP was conditional on the approval of the Waste and Resource Management Plan. Details as follows: WRMP (M4E-ES-PLN-PWD-00244):</p> <ul style="list-style-type: none"> <li>Final lodged: 11/03/2016</li> <li>Amended Document lodged: 23/03/2016</li> <li>Approved: 06/04/2016.</li> </ul> <p>No exclusions were identified in CEMP approval letter. However, it is noted that the SWMP and FFMP approval letters refer to major updates of the CEMP and sub-plans to cover tunnelling works. And, the HMP approval letter indicates the CEMP and HMP must be reconsidered once further details of the UDLP are determined.</p> <p>The CEMP was reviewed prior to commencement of tunnelling, however no updates were required. Minor administrative changes to the CEMP were approved by the Environmental Representative on 24 May 2016.</p> <p>The CEMP will also be reviewed once further details of the UDLP are identified. If required, the plan will be updated at that time for the approval of either the Environmental Representative or the DP&amp;E.</p> <p>An audit of the project CEMP was completed on 8 and 9 June 2016,</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>following environmental performance issues must be addressed in the CEMP –</p> <ul style="list-style-type: none"> <li>i. measures to monitor and manage dust emissions including dust from stockpiles, blasting, traffic on unsealed public roads and materials tracking from construction sites onto public roads,</li> <li>ii. measures for the handling, treatment and management of hazardous and contaminated materials (including asbestos),</li> <li>iii. measures to monitor and manage waste generated during construction including but not limited to general procedures for waste classification, handling, reuse, and disposal, use of secondary waste material in construction wherever feasible and reasonable, procedures or dealing with green waste including timber and mulch from clearing activities. and measures for reducing demand on water resources (including potential for reuse of treated water from sediment control basins);</li> <li>iv. measures to monitor and manage hazard and risks,</li> <li>v. measures to monitor and rectify any impacts to third party property and infrastructure, including details of the process for rectification or compensation of affected landowners, and timeframes for rectification works or compensation processes, and</li> <li>vi. the sub-plans identified in condition D57.</li> </ul> <p>The CEMP must include procedures for its periodic review and update (including the sub-plans required under condition D57), as necessary (including where minor changes can be approved by the Environmental Representative).</p> <p>Nothing in this condition prevents the Proponent from preparing a Stockpile Management Protocol as part of the CEMP.</p> <p>The CEMP must be submitted for the approval of the Secretary no later than one month prior to the commencement of construction, or as otherwise agreed by the Secretary. The CEMP may be prepared in</p>											by the CPB Contractors Group Environment Manager. The audit did not identify any non-conformances.





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>stages; however, construction works must not commence until written approval of the relevant stage has been received from the Secretary.</p> <p>The approval of a CEMP does not relieve the Proponent of any requirement associated with this SSI approval. If there is an inconsistency with an approved CEMP and the conditions of this SSI approval, the requirements of this SSI approval will prevail.</p>											
Construction Environmental Management Plan — Sub Plans													
D57		As part of the CEMP for the SSI, the Proponent must prepare and implement:											
	(a)	<p>a Construction Traffic and Access Management Plan to ensure traffic and access controls are implemented to avoid or minimise impacts on traffic, pedestrian and cyclist access, and the amenity of the surrounding environment. The Construction Traffic and Access Management Plan must be developed in consultation with the relevant council(s), emergency services, SOPA, road user groups, and pedestrian and bicycle user groups, and include, but not be limited to:</p> <ul style="list-style-type: none"> <li>i. identification of construction traffic routes including any known road closures and consideration of alternate routes and construction traffic volumes (including heavy vehicle/spoil haulage) on these routes;</li> <li>ii. details of vehicle movements for construction sites and ancillary facilities including parking, dedicated vehicle turning areas, and ingress and egress points;</li> <li>iii. discussion of construction impacts that could result in disruption of traffic, public transport, pedestrian and cycle access, access to public land, property access, including details of oversize load movements, and the nature and duration of those impacts;</li> <li>iv. details of management measures to minimise traffic impacts, including temporary road work traffic control measures, onsite vehicle queuing and parking areas and management measures to minimise peak time</li> </ul>	Yes	Yes	Pre-Construction	TBC	Yes	11/03/2016	21/03/2016	Pending	CSJ	Open	<p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) as approved by DP&amp;E on 15 April 2016 fulfils this CoA.</p> <p>Approval of the TAMP also permitted the use of the local roads, Short Street and Powell Street, Homebush, in accordance with D42.</p> <p>The approval of the TAMP limits the workforce numbers to match the available parking numbers. In the eastern zone of the project, where a parking deficit is expected, an assessment of local road parking capacity must be undertaken prior to workforce numbers exceeding available parking numbers.</p> <p>The plan is implemented to ensure compliance with the relevant planning approval conditions.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		congestion and measures to ensure safe pedestrian and cycle access; v. details of measures to maintain or provide alternative safe and accessible routes for pedestrians throughout the duration of construction; vi. details of measures to maintain connectivity for cyclists, with particular emphasis on providing adequate access between key existing cycle routes for commuter cyclists; vii. a parking strategy detailing reductions in on-street parking consequent to construction activities and at Concord Oval, Concord, proposed construction staff parking arrangements including opportunities for accommodating construction parking at the Roads and Maritime owned car park at Railway Lane, North Strathfield, and measures to reduce on-street parking impacts including working with the relevant councils to introduce parking restrictions adjacent to work sites and compounds; viii. details of measures to manage traffic movements, parking, loading and unloading at ancillary facilities during out-of-hours work; ix. details of methods to be used to communicate proposed future traffic changes to affected road users, pedestrians and cyclists, consistent with the Community Communication Strategy required under condition C1; x. an adaptive response plan which sets out a process for response to any traffic, construction or other incident; and xi. mechanisms for the monitoring, review and amendment of the Construction Traffic and Access Management Plan.											
	(b)	a Construction Noise and Vibration Management Plan to detail how construction noise and vibration impacts will be minimised and managed. The Plan must be consistent with the guidelines contained in the <i>Interim</i>	Yes	Yes	Pre-Construction	22/03/2016	Yes	03/03/2016	17/03/2016	22/03/2016	CSJ	Open	The Project Construction Noise and Vibration Management Plan (M4E-ES-PLN-PWD-00241) as



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p><i>Construction Noise Guidelines</i> (DECC, 2009). The Construction Noise and Vibration Management Plan must be developed in consultation with the EPA and must include, but not be limited to:</p> <ol style="list-style-type: none"> <li>i. identification of the work areas, site compounds and access points;</li> <li>ii. identification of sensitive receivers and relevant construction noise and vibration goals applicable to the SSI and stipulated in the conditions above;</li> <li>iii. details of construction activities and an indicative schedule for construction works, including the identification of key noise and/or vibration generating construction activities (based on representative construction scenarios, including at ancillary facilities) that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers, particularly residential areas;</li> <li>iv. details of the predicted worst-case noise and vibration levels based on the refined background noise levels determined under condition D11, including cumulative impacts arising from concurrent construction works and potential for sleep disturbance;</li> <li>v. figures illustrating the predicted safe working distances for vibration intensive activities and equipment;</li> <li>vi. an Out-of-Hours Work Protocol for the assessment, management and approval of works outside of standard construction hours as defined in condition D14 of this approval, for the Secretary's approval. The Out-of-Hours Work Protocol must be consistent with the out-of-hours work procedure detailed in the <i>Construction Noise Strategy</i> (Transport Construction Authority, 2011) and-                         <ol style="list-style-type: none"> <li>A. provide an assessment of out-of-hours works against the relevant noise and vibration criteria,</li> <li>B. provide detailed mitigation measures for any residual impacts (that is, additional to</li> </ol> </li> </ol>										<p>approved by DP&amp;E on 22 March 2016 fulfils this CoA.</p> <p>The approval letter for the NVMP did not permit out of hours spoil haulage.</p> <p>However, it is noted that the SWMP and FFMP approval letters refer to major updates of the CEMP and sub-plans to cover tunnelling works.</p> <p>The NVMP was reviewed and updated prior to commencement of tunnelling, with DP&amp;E approval received on 5 July 2016.</p> <p>Whilst the project is compliant with this condition, in that the NVMP has been developed, there were two instances during the reporting period where incidents resulted in non-compliance with the Out of Hours Works protocol (within the NVMP). In the first incident utilities works extended past standard construction hours due to unforeseen circumstances. In the second incident utilities works extended past the approved out of hours period due to unforeseen circumstances. As a result of these incidents construction crews were toolboxed in the requirements of the Out of Hours Works Protocol and Out of Hours Works Permits were updated to include contingency for unforeseen circumstances.</p> <p>During the reporting period compliance with the NVMP has been demonstrated through:</p> <ul style="list-style-type: none"> <li>• The Out of Hours Works permitting system. In the development of the Out of Hours Works Permit, works are modelled and assessed against noise criteria in the NVMP, mitigation measures are developed and compliance is confirmed through monitoring of the works,</li> <li>• Noise monitoring of construction works during</li> </ul>	



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>general mitigation measures), including extent of at-receiver treatments, and</p> <p>C. set out proposed notification arrangements;</p> <p>vii. identification of feasible and reasonable measures proposed to be implemented to minimise and manage construction noise and vibration impacts, especially sleep disturbance (including construction traffic noise impacts), including, but not limited to, acoustic enclosures, erection of noise walls (hoardings), respite periods and the limiting of truck movements during night periods;</p> <p>viii. identification of feasible and reasonable procedures and mitigation measures to ensure relevant vibration and blasting criteria are achieved, including a suitable blast program, applicable buffer distances for vibration intensive works, use of low-vibration generating equipment/vibration dampeners or alternative construction methodology, and pre- and post- construction dilapidation surveys of sensitive structures where blasting and/or vibration is likely to result in damage to buildings and structures (including surveys being undertaken immediately following a monitored exceedance of the criteria);</p> <p>ix. details of tunnelling including associated impacts, management and mitigation measures;</p> <p>x. a description of how the effectiveness of mitigation and management measures would be monitored during the proposed works, clearly indicating how often this monitoring would be conducted, the locations where monitoring would take place, how the results of this monitoring would be recorded and reported, and, if any exceedance is detected, how any noncompliance would be rectified; and</p>											<p>standard and non-standard hours. On two occasions noise levels were greater than those predicted in the noise model. In the first instance at the Cintra Park tunnel site subsequent monitoring confirmed that higher than expected background levels had led to higher actual noise levels. In the second instance at Wattle Street civil site the construction crew were toolbox talked on the requirements of the permit, and the construction met to discuss the event and review the equipment used, and</p> <ul style="list-style-type: none"> <li>The response to noise complaints received, including the use of temporary noise blankets for service location works within the Wattle Street civil site and rearrangement of the work area at Cintra Park tunnel site to use plant as a noise barrier during high impact activities.</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		xi. mechanisms for the monitoring, review and amendment of the Construction Noise and Vibration Monitoring Plan.											
	(c)	<p>a Construction Heritage Management Plan to ensure, and provide detail of how, construction impacts on Aboriginal and non-Aboriginal heritage will be appropriately minimised and managed. The Construction Heritage Management Plan must include, but not be limited to:</p> <p>i. in relation to Aboriginal Heritage –</p> <p>A. procedures for dealing with previously unidentified Aboriginal objects (excluding human remains), including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures, including when works can re-commence, by a suitably qualified and experienced archaeologist in consultation with the OEH, and Aboriginal stakeholders, and assessment of the consistency of any Aboriginal heritage impacts against the approved impacts of the SSI,</p> <p>B. procedures for dealing with human remains, including cessation of works in the vicinity, notification of, NSW Police Force, OEH and Aboriginal stakeholders, and commitment to cease recommencing any works in the area unless authorised by OEH and/or the NSW Police Force,</p> <p>C. heritage training and induction processes for construction personnel (including procedures for keeping records of inductions and obligations under this approval) including site identification, protection and conservation</p>	Yes	Yes	Pre-Construction	24/03/2016	Yes	04/03/2016	22/03/2016	24/03/2016	CSJ	Open	<p>The Project Heritage Management Plan (M4E-ES-PLN-PWD-00 238) as approved by DP&amp;E on 24 March 2016 fulfils this CoA.</p> <p>The HMP approval letter required minor updates to the HMP, which were undertaken and will be provided to DP&amp;E on 15 June 2016. The HMP was further revised to include additional details of the heritage salvage process, with DP&amp;E approval provided on 6 July 2016.</p> <p>The HMP approval letter also indicates the CEMP and HMP must be reconsidered once further details of the UDLP are determined.</p> <p>Once details of the UDLP are determined, the HMP will be revised and updated as required for the approval of either the Environmental Representative (for minor updates) or the DP&amp;E.</p> <p>Further, the Historical Archaeological Research Design (HARD) is required to be updated if excavation is proposed in the vicinity of the Longbottom Stockade, located to the north of Concord Oval.</p> <p>An audit of the project HMP was completed on 8 and 9 June 2016, by the CPB Contractors Group Environment Manager. The audit did not identify any non-conformances.</p> <p>During the reporting period compliance with the HMP has been demonstrated through:</p> <ul style="list-style-type: none"> <li>Implementation of the Unexpected Heritage Finds Procedure for the discovery of bones (later identified as non-human) and other non-indigenous potential heritage artefacts,</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>of Aboriginal cultural heritage, and</p> <p>D. procedures for ongoing Aboriginal consultation and involvement for the duration of the SSI, in the event that previously unidentified Aboriginal objects are discovered; and</p> <p>ii. In relation to non-Aboriginal Heritage –</p> <p>A. identification of heritage items directly and indirectly affected by the SSI,</p> <p>B. details of management measures to be implemented to prevent and minimise impacts on heritage items (including further heritage investigations, archival recordings and/or measures to protect unaffected sites during construction works in the vicinity),</p> <p>C. details of monitoring and reporting requirements for impacts on heritage items,</p> <p>D. procedures for dealing with previously unidentified heritage objects and relics, including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can recommence by a suitably qualified and experienced archaeologist in consultation with the NSW Heritage Council, and assessment of the consistency of any heritage impacts against the approved impacts of the SSI,</p> <p>E. processes and mechanisms for the reuse and recycling of building and landscape components from contributory, potential and locally listed heritage items</p>											<ul style="list-style-type: none"> <li>The salvage of approximately 90% of identified items and material from heritage properties within the project,</li> <li>Development of an ancillary facility layout for the Wattle Street civil site which does not include the demolition of 18, 20 and 22 Walker Avenue,</li> <li>Completion of archival recording for heritage items and heritage conservation areas impacted by the demolition works,</li> <li>Avoidance of impacts to heritage street trees as per the compliance response for CoA B30,</li> <li>Avoidance of impacts to the heritage listed fig trees at Cintra Park as per the compliance response for CoA B31, and</li> <li>Implementation of the Historical Archaeological Research Design, with the Excavation Director present during excavation in the vicinity of archaeological sites as per the compliance response to CoA D37.</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>within other built or landscaped components of the SSI, and</p> <p>F. heritage training and induction processes for construction personnel (including procedures for keeping records of inductions and obligations under this approval) including site identification, protection and conservation of non-Aboriginal cultural heritage; and</p> <p>iii. mechanisms for the monitoring, review and amendment of the Construction Heritage Management Plan.</p> <p>The Construction Heritage Management Plan must be developed in consultation with the OEH, NSW Heritage Council (for non-Aboriginal heritage) and Registered Aboriginal Groups (for Aboriginal heritage).</p>											
	(d)	<p>a Construction Flora and Fauna Management Plan to detail how construction impacts on ecology will be minimised and managed. The Construction Flora and Fauna Management Plan must be endorsed by a suitably qualified and experienced ecologist and be prepared in consultation with the OEH, and must include, but not be limited to:</p> <p>i. detailed maps showing the location of impacted and adjoining flora and fauna habitat areas;</p> <p>ii. detailed maps showing where pre-clearing surveys will be undertaken to confirm the location of threatened species, populations and ecological communities;</p> <p>iii. the identification of areas to be impacted and details of management measures to avoid residual habitat damage or loss and to minimise or eliminate time lags between the removal and subsequent replacement of habitat such as –</p> <p>A. clearing minimisation procedures (including fencing),</p> <p>B. clearing procedures,</p>	Yes	Yes	Pre-Construction	24/03/2016	Yes	10/03/16	21/03/2016	24/03/2016	CSJ	Open	<p>The Project Flora Fauna Management Plan (M4E-ES-PLN-PWD-00 237) as approved by DP&amp;E on 24 March 2016 fulfils this CoA.</p> <p>No restrictions or limitations were identified in the FFMP approval letter.</p> <p>During the reporting period the FFMP had a minor update which was approved by the Environmental Representative on 24 May 2016.</p> <p>An audit of the project FFMP was completed on 8 and 9 June 2016, by the CPB Contractors Group Environment Manager. The audit did not identify any non-conformances.</p> <p>During the reporting period compliance with the FMP has been demonstrated through:</p> <ul style="list-style-type: none"> <li>The development of Site Environmental Plans which identify areas of sensitive vegetation and habitat to be avoided during construction,</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		C. removal and relocation of fauna during clearing (including microbat management plan), D. habitat tree management, and E. construction worker education; iv. rehabilitation details, including identification of flora species and sources, and measures for the management and maintenance of rehabilitated areas; v. a Weed Management Strategy, incorporating weed management measures focusing on early identification of invasive weeds and effective management controls; vi. a description of how the effectiveness of the flora and fauna management measures would be monitored; vii. a procedure for dealing with unexpected threatened species, populations and ecological communities identified during construction, including cessation of work and notification to the OEH, determination of appropriate mitigation measures in consultation with the OEH (including relevant re-location measures) and updating of ecological monitoring and/ or biodiversity offset requirements; and viii. mechanisms for the monitoring, review and amendment of the Construction Flora and Fauna Management Plan.											<ul style="list-style-type: none"> <li>The minimisation of clearing as per the compliance response with CoA D47, and</li> <li>The completion of pre-clearing surveys as per the compliance response with CoA D48.</li> </ul>
	(e)	a Construction Air Quality Management Plan to detail how construction impacts on local air quality will be minimised and managed. The Construction Air Quality Management Plan must include, but not be limited to: i. identification of sources (including stockpiles and open work areas) and quantification of airborne pollutants; ii. key performance indicators for local air quality during construction; iii. details of monitoring methods, including location, frequency and duration of monitoring;	Yes	Yes	Pre-Construction	23/03/2016	Yes	29/02/2016	20/03/2016	23/03/2016	CSJ	Open	The Project Air Quality Management Plan (M4E-ES-PLN-PWD-00234) as approved by DP&E on 23 March 2016 fulfils this CoA. The AQMP approval was subject to minor amendments. A revised version of the plan was provided to DP&E on 24 March 2016. During the reporting period compliance with the FMP has been demonstrated through: <ul style="list-style-type: none"> <li>The response to dust complaints received, including</li> </ul>





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		iv. mitigation measures to minimise impacts on local air quality including, but not limited to, the relevant revised environmental mitigation measures set out in the documents listed in condition A2(c); v. procedures for record keeping and reporting against key performance indicators; vi. provisions for implementation of additional mitigation measures in response to issues identified during monitoring and reporting; and vii. mechanisms for the monitoring, review and amendment of the Construction Air Quality Management Plan.											confirmation that dust suppression with water hoses was implemented, ceasing high impact works during windy conditions and the offer to clean properties following an inspection, and <ul style="list-style-type: none"> <li>Implementation of mitigation measures as per the compliance response for REMMs AQ1 to AQ45.</li> </ul>
	(f)	a Construction Soil and Water Management Plan to manage surface and groundwater impacts during construction of the SSI. The Construction Soil and Water Management Plan must be developed in consultation with the EPA, DPI (Water) and relevant councils, and include, but not be limited to: i. details of construction activities and their locations, which have the potential to impact on water courses and riparian land, storage facilities, stormwater flows, and groundwater, including identification of all pollutants that may be introduced into the water cycle; ii. potential impacts on watercourse bank stability and the development of appropriate mitigation measures as required; iii. measures to manage and/or minimise sediment and erosion, groundwater impacts and surface water quality impacts (including stormwater runoff and groundwater treatment); iv. contingency plan in the event that the unanticipated discovery of contaminated groundwater or soils; v. where acid sulfate soils are known to occur or potentially occur, an Acid Sulfate Soils Management Plan, including measures for the management, handling, treatment and disposal of acid sulfate soils, including monitoring of water quality	Yes	Yes	Pre-Construction	23/03/2016	Yes	09/03/2016	21/03/2016	23/03/2016	CSJ	Open	The Project Soil and Water Management Plan (M4E-ES-PLN-PWD-00242); as approved by DP&E on 23 March 2016 fulfils this CoA. Approval of the SWMP did not include approval of the Water Quality Monitoring Program required under CoA B18 and B19. The approval letter for the SWMP does not permit the on-site treatment of acid sulfate soils (ASS). An update to the ASS Management Plan (ASSMP) would be required to include treatment areas and site-specific measures for any nominated on-site treatment areas prior to the commencement of on-site treatment. To date ASS have not been encountered, nor required stockpiling on the project. During the reporting period the SWMP had a minor update which was approved by the Environmental Representative on 24 May 2016. During the reporting period compliance with the SWMP has been demonstrated through: <ul style="list-style-type: none"> <li>The implementation of the Dewatering and Discharge procedure, including the issue Dewatering permits prior to all discharges from site,</li> </ul>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		at acid sulfate soils treatment areas, should the project impact on acid sulfate soils; vi. a description of how the effectiveness of the actions and measures for managing soil and water impacts would be monitored during the proposed works, clearly indicating how often this monitoring would be undertaken, the locations where monitoring would take place, how the results of the monitoring would be recorded and reported, and, if any exceedance of the criteria is detected how any non-compliance can be rectified; and vii. mechanisms for the monitoring, review and amendment of this Construction Soil and Water Management Plan.											<ul style="list-style-type: none"> <li>Monitoring of surface and groundwater in accordance with the Water Quality Monitoring Program, and</li> <li>The implementation and inspection of erosion and sediment controls as per the compliance response for CoA D3.</li> </ul>
PART E													
OPERATIONAL ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING													
AIR QUALITY													
In-Tunnel Air Quality													
E1		The Proponent must monitor (by sampling and obtaining results by analysis) the pollutants, within the tunnel, specified in Table 4. The Proponent must use the sampling method, units of measurement and sample at the frequency specified opposite in the other columns.  The number and siting of the monitoring stations inside the tunnel must be determined to permit an accurate calculation, per the requirements of conditions E2, E3 and E4, and be independently verified in accordance with a methodology approved by the Secretary in consultation with the EPA. As a minimum there should be monitoring stations at the entry portals, the base of the ventilation outlets, ramp junctions and at the Cintra Park emergency smoke extraction facility.  Sampling points and visibility monitoring points established under this condition must be audited prior to its commencement of monitoring for compliance with the requirements set out in Table 4. Verification and compliance auditing is to be undertaken by an independent person(s) or organisation(s) approved by the Secretary, and paid for by the Proponent. Monitoring	N/A	N/A	Operation	March 2019 – ongoing	Yes	TBC	TBC	TBC	WCXM4 Co; CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken between February and September 2016, and will include design of air quality monitoring stations when finalised.  This CoA applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence																
			Stage 1	Stage 2																									
		must take place in accordance with this condition throughout operation of the SSI. Air quality data is to be made available in as close to real time as possible, under the website reporting requirements of condition E21.  Table 4 - In Tunnel monitoring methodology <table border="1"> <thead> <tr> <th>Pollutant /parameter</th> <th>Units of measure</th> <th>Frequency</th> <th>Method<sup>1</sup></th> </tr> </thead> <tbody> <tr> <td>CO</td> <td>ppm</td> <td>Continuous</td> <td>Special Method 1<sup>1</sup></td> </tr> <tr> <td>NO<sub>2</sub></td> <td>ppm</td> <td>Continuous</td> <td>Special Method 1<sup>1</sup></td> </tr> <tr> <td>Visibility</td> <td>m<sup>-1</sup></td> <td>Continuous</td> <td>Special Method 1<sup>1</sup></td> </tr> </tbody> </table> Note: Special Method 1 means a method approved by the Secretary in consultation with the EPA.	Pollutant /parameter	Units of measure	Frequency	Method <sup>1</sup>	CO	ppm	Continuous	Special Method 1 <sup>1</sup>	NO <sub>2</sub>	ppm	Continuous	Special Method 1 <sup>1</sup>	Visibility	m <sup>-1</sup>	Continuous	Special Method 1 <sup>1</sup>											
Pollutant /parameter	Units of measure	Frequency	Method <sup>1</sup>																										
CO	ppm	Continuous	Special Method 1 <sup>1</sup>																										
NO <sub>2</sub>	ppm	Continuous	Special Method 1 <sup>1</sup>																										
Visibility	m <sup>-1</sup>	Continuous	Special Method 1 <sup>1</sup>																										
In-Tunnel Air Quality — Limits																													
E2		The tunnel ventilation system must be designed and operated so that the average concentration of CO and NO <sub>2</sub> , calculated along the length of the tunnel, does not exceed the concentration limit specified for that pollutant in Table 5.  Table 5 - In-Tunnel Air Quality - Limits <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Concentration Limit</th> <th>Units of measurement</th> <th>Averaging period</th> </tr> </thead> <tbody> <tr> <td>CO</td> <td>87</td> <td>ppm</td> <td>Rolling 15-minute</td> </tr> <tr> <td>CO</td> <td>50</td> <td>ppm</td> <td>Rolling 30-minute</td> </tr> <tr> <td>NO<sub>2</sub></td> <td>0.5</td> <td>ppm</td> <td>Rolling 15-minute</td> </tr> </tbody> </table>	Pollutant	Concentration Limit	Units of measurement	Averaging period	CO	87	ppm	Rolling 15-minute	CO	50	ppm	Rolling 30-minute	NO <sub>2</sub>	0.5	ppm	Rolling 15-minute	No	Yes	Detailed Design Operation	Design: September 2016  Operation: March 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken between February and September 2016. A draft Ventilation Report has been completed (due for FD in August 2016) and notes that the current design is compliant with this condition.  As the design continues to develop compliance will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.  This also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
Pollutant	Concentration Limit	Units of measurement	Averaging period																										
CO	87	ppm	Rolling 15-minute																										
CO	50	ppm	Rolling 30-minute																										
NO <sub>2</sub>	0.5	ppm	Rolling 15-minute																										
E3		The tunnel ventilation system must be designed and operated so that the concentration of CO as measured at any single point in the tunnel must not exceed	No	Yes	Detailed Design Operation	Design: September 2016	No	N/A	N/A	N/A	WCXM4 Co; CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken between February and September 2016. A draft																



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence								
			Stage 1	Stage 2																	
		the concentration limit specified for that pollutant in Table 6 under all conditions (including congested conditions).  Table 6 - In-tunnel single point exposure limits  <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Concentration Limit</th> <th>Units of measurement</th> <th>Averaging period</th> </tr> </thead> <tbody> <tr> <td>CO</td> <td>200</td> <td>ppm</td> <td>Rolling 3-minute</td> </tr> </tbody> </table>	Pollutant	Concentration Limit	Units of measurement	Averaging period	CO	200	ppm	Rolling 3-minute				Operation: March 2019 – ongoing							Ventilation Report has been completed (due for FD in August 2016) and notes that the current design is compliant with this condition.  As the design continues to develop compliance will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.  This also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
Pollutant	Concentration Limit	Units of measurement	Averaging period																		
CO	200	ppm	Rolling 3-minute																		
E4		The tunnel ventilation system must be designed and operated so that the visibility in the tunnel does not exceed the level specified in Table 7  Table 7 - In-tunnel visibility limits along length of tunnel  <table border="1"> <thead> <tr> <th>Parameter</th> <th>Average extinction coefficient Limit</th> <th>Units of measurement</th> <th>Averaging period</th> </tr> </thead> <tbody> <tr> <td>Visibility</td> <td>0.005</td> <td>m<sup>-1</sup></td> <td>Rolling 15-minute</td> </tr> </tbody> </table>	Parameter	Average extinction coefficient Limit	Units of measurement	Averaging period	Visibility	0.005	m <sup>-1</sup>	Rolling 15-minute	No	Yes	Detailed Design Operation	Design: September 2016  Operation: March 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken between February and September 2016. A draft Ventilation Report has been completed (due for FD in August 2016) and notes that the current design is compliant with this condition.  As the design continues to develop compliance will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.  This also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
Parameter	Average extinction coefficient Limit	Units of measurement	Averaging period																		
Visibility	0.005	m <sup>-1</sup>	Rolling 15-minute																		
In-Tunnel Air Quality — Limits — Optimisation																					
E5	(a)	An independent person or organisation approved by the Secretary must:  verify that compliance with in-tunnel limits detailed in E2, E3 and E4, will: i. supplement/not preclude compliance with the predicted air quality outcomes presented in the documents listed in condition A2, and ii. not result in air quality impacts greater than predicted in the documents listed in condition A2;	N/A	N/A	Operation	March 2019	Yes	TBC	TBC	TBC	WCXM4 Co; CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in future QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.  Note that the only approval role the Secretary has under this condition is the appointment of the independent entity.								



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(b)	not result in air quality impacts greater than predicted in the documents listed in condition A2;											
	(c)	validate recorded monitoring data and certify compliance with the in-tunnel air quality limits.  The information required in paragraphs (a) - (c) of this condition will be made available to the Secretary on request.											
In-Tunnel Air Quality — Notification and Reporting													
E6		In addition to the general reporting requirements specified in condition E20, the Proponent must, within 24 hours, notify the Secretary, EPA and NSW Health of any recordings above the limits specified in conditions E2, E3 and E4. The notification must detail the nature of the event, the concentration or visibility levels that occurred, the duration of the event, and the measures employed to minimise the concentration levels and/or improve the visibility levels.  Upon receipt of this notification, the Secretary must consider the circumstances of the event, including:  (a) the nature of the event, including any details relating to the cause; (b) the duration of the event; (c) the extent and severity of the event; and (d) the frequency of the event, including whether an event with the same or similar circumstances has occurred previously.  Based on consideration of the circumstances of the event, the Secretary may request the Proponent to prepare a Tunnel Air Quality Management Systems Effectiveness Report, in accordance with condition E7.	N/A	N/A	Operation	March 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
E7		Within 20 working days of any request by the Secretary under condition E6 the Proponent must prepare and submit to the Secretary a Tunnel Air Quality Management Systems Effectiveness Report on the overall system performance and cause and major contributor of any exceedances, detailing the following:	N/A	N/A	Operation	March 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(a)	the overall performance and concentration levels in the tunnel for the preceding six month period (or since commencement of operation, where the SSI has operated for under six months), including average and maximum levels and time periods;											
	(b)	details of any instances throughout the operation of the SSI where pollutant concentration levels in the tunnel have exceeded the limits specified in conditions E2, E3 and E4; and											
	(c)	consideration of improvements to the tunnel air quality management system.  The Tunnel Air Quality Management Systems Effectiveness Report is to be prepared by the Proponent and reviewed by a suitably qualified and experienced independent specialist(s). The Secretary must approve the independent specialist /organisation.  The Proponent must comply with any requirements arising from the Secretary's review of the Tunnel Air Quality Management Systems Effectiveness Report.											
Ambient Air Quality — Monitoring													
E8		The Proponent must monitor (by sampling and obtaining results by analysis) the pollutants and parameters specified in Column 1 of Table 8 at the following locations as a minimum:	N/A	Yes	Pre-Operation	March 2018 – ongoing	Yes	N/A	N/A	N/A	WCXM4 Co; CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken between February and September 2016, and will include design of air quality monitoring stations when finalised.  As the design continues to develop compliance will be reported on in the QCCR referred to in Section 2.3 of this QCCR.  This also applies to the pre-operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.  Note the only approval role the Secretary has under this condition is for the appointment of the Auditor.
	(a)	two ground level receptors near the eastern ventilation outlet, at locations suitable for detecting any impact on air quality from the outlet;											
	(b)	two ground level receptors near the western ventilation outlet, at locations suitable for detecting any impact on air quality from the outlet;											
	(c)	one location along Parramatta Road, at a location suitable for detecting any impact on air quality along Parramatta Road; and											
	(d)	one location, away from any of the locations at (a), (b) and (c), suitable for providing background ambient air quality reference data for the project area.  In selecting the monitoring locations, consideration is to be given to the desirability											



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>of like-to-like comparison of monitoring results to available pre-construction data, and the requirement in condition E46 for the independent team of experts to review the accuracy of predicted environmental outcomes discussed in the documents listed in conditions A2(b) and A2(c).</p> <p>All monitoring stations must be established subject to the land owner's and occupier's agreement. The Proponent must use the sampling method, units of measure, and sampling frequency specified in Table 8.</p> <p>Table 8 - Ambient Air Quality Monitoring Methodologies</p> <p>The Proponent must commence monitoring for at least twelve continuous months prior to operation. The locations are to be agreed to by the AQCCC. The Proponent must meet all operating costs associated with the stations.</p> <p>The Proponent, following consultation with the AQCCC, must review the need for the continuation of the ambient monitoring stations after a period of two years from commencement of operation. Any recommendation to close the stations will require the approval of the Secretary in consultation with the EPA.</p> <p>The establishment and operation of the stations is to be undertaken in accordance with recognised Australian standards and undertaken by an organisation accredited by NATA for this purpose and approved by the Secretary in consultation with the EPA and the AQCCC. The quality of the monitoring results must be assured through a NATA accredited process prior to the data being considered as a basis for compliance/auditing purposes.</p> <p>Monitoring results must be made publicly available and must be subject to an independent audit at six-monthly intervals (or at a longer interval, if approved by the Secretary). The auditor must be approved by the Secretary in consultation with the EPA and the AQCCC, and the auditor's report must be directly provided to the Proponent and the AQCCC.</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>1. <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA, 2007) or as</i></li> </ol>											



Ref	Sub-ref	CoA					Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence	
		Pollutant	Units of measurement	Averaging Period	Frequency	Method <sup>1</sup>	Stage 1	Stage 2										
		NO	pphm	1-hour	Continuous	AM-12												
		NO <sub>2</sub>	pphm	1-hour	Continuous	AM-12												
		NO <sub>x</sub>	pphm	1-hour	Continuous	AM-12												
		PM <sub>10</sub>	µg/m <sup>3</sup>	24-hour	Continuous	AS3580.9.8-2008 <sup>2</sup>												
		PM <sub>2.5</sub> <sup>5</sup>	µg/m <sup>3</sup>	24-hour	Continuous	AS3580.9.13-2013 <sup>3</sup> or as otherwise agreed by the Secretary in consultation with the EPA												
		CO	ppm	1-hour, 8-hour	Continuous	AM-6												
		<b>Parameter<sup>4</sup></b>	<b>Units of measurement</b>	<b>Averaging Period</b>	<b>Frequency</b>	<b>Method<sup>1</sup></b>												
		Wind Speed @ 10 m	m/s	1-hour	Continuous	AM-2 & AM-4												
		Wind Direction @ 10 m	°	1-hour	Continuous	AM-2 & AM-4												
		Sigma Theta @ 10 m	°	1-hour	Continuous	AM-2 & AM-4												
		Temperature @ 2m	K	1-hour	Continuous	AM-4												
		Temperature	K	1-hour	Continuous	AM-4												





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence														
			Stage 1	Stage 2																							
		<table border="1"> <tr> <td>@ 10 m</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <th>Other</th> <th>Units of measurement</th> <th>Averaging Period</th> <th>Frequency</th> <th>Method<sup>1</sup></th> </tr> <tr> <td>Siting</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>AM-1 &amp; AM-4</td> </tr> </table> <p>otherwise agreed to in writing by the Secretary in consultation with the EPA.</p> <ol style="list-style-type: none"> <li>AS3580.9.8-2008, Methods for the Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM10 Continuous Direct Mass Method using Tapered Element Oscillating Microbalance Analyser (Standards Australia, 2008).</li> <li>AS 3580.9.13-2013, Methods for the Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM2.5 Continuous Direct Mass Method using a Tapered Element Oscillating Microbalance Analyser (Standards Australia, 2013).</li> <li>TBD - location for meteorological monitoring station(s) to be representative of weather conditions likely to occur in the vicinity of the northern and southern ventilation outlets.</li> <li>Appropriately modified to include size selective inlet for PM2.5 or as otherwise approved by the Secretary.</li> </ol>	@ 10 m					Other	Units of measurement	Averaging Period	Frequency	Method <sup>1</sup>	Siting	NA	NA	NA	AM-1 & AM-4										
@ 10 m																											
Other	Units of measurement	Averaging Period	Frequency	Method <sup>1</sup>																							
Siting	NA	NA	NA	AM-1 & AM-4																							
Ambient Air Quality — Goals																											
E9		Should ambient monitoring of air pollutants exceed the following goals, the provisions of conditions E10, E11 and E12 will apply:	N/A	N/A	Operation	March 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.														
	(a)	CO – 8 hour rolling average of 9.0 ppm (NEPM);																									
	(b)	NO2 – One hour average of 0.12 ppm (245 µg/m3) (NEPM);																									
	(c)	PM10 – 24 hour average of 50 µg/m3 (NEPM);																									



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(d)	PM2.5 – 24 hour average of 25 µg/m3 (proposed NEPM)											
	(e)	PM10 – annual average of 25 µg/m3 (Meeting of Environment Ministers – Agreed Statement); and											
	(f)	PM2.5 – annual average of 8 µg/m3 (Meeting of Environment Ministers – Agreed Statement).											
Ambient Air Quality — Notification and Reporting													
E10		In addition to the general reporting requirements specified in condition E20, the Proponent must prepare a Ambient Air Quality Goal Protocol for the evaluation of a potential measurement that exceeds the goals. The Ambient Air Quality Goal Protocol must be developed by the Proponent in consultation with the AQCCC and approved by the Secretary.  The Ambient Air Quality Goal Protocol must include:  (a) the form of and process for providing a Notification of Above-Goal Recording, subject to condition E11;  (b) the form and contents of a Report on Above-Goal Reading, subject to condition E12; and  (c) a process for appointing an independent person/organisation to prepare the Report on Above-Goal Reading. The process must include –  i. approval of the independent person/organisation by the Secretary prior to preparation of the report, and  ii. the appointment of the independent person/organisation prior to the commencement of operation, or at some other time prior to preparation of the report with the agreement of the Secretary.	N/A	N/A	Operation	March 2019	Yes	TBC	TBC	TBC	WCXM4 Co; CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
E11		The Ambient Air Quality Goal Protocol must provide a Notification of Above-Goal Recording if ambient monitoring of air pollutants records an exceedance of the goals in conditions E2, E3 and E4. The Notification of Above-Goal Recording is to be submitted within 24 hours of the recording, to the Secretary, EPA and NSW Health. The Notification of Above-Goal Recording must detail:	N/A	N/A	Operation	March 2019	Yes	TBC	TBC	TBC	WCXM4 Co; CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(a) (b) (c) (d) (e)	the nature of the event; the concentration or visibility levels that occurred; the duration of the event; the measures employed to minimise the concentration levels and/or improve the visibility levels; and the Proponent's commitment to prepare and submit a Report on Above-Goal Reading in accordance with condition E12.											
E12		<p>Within 20 working days of any Notification of Above-Goal Reading, the Proponent must prepare and submit to the Secretary a Report on Above-Goal Reading that details the cause and major contributor of the exceedance and the options available to prevent recurrence.</p> <p>Where the operation of the tunnel is identified to be a significant contributor to the recorded above-goal reading, the Report on Above-Goal Reading must include consideration of improvements to the tunnel air quality management system so as to achieve compliance with the ambient air quality goals, including but not limited to installation of the additional ventilation management facilities allowed for under condition B5 and discussion of whether those improvements are feasible and reasonable.</p> <p>The Proponent must comply with any requirements arising from the Secretary's review of the Report on Above-Goal Reading.</p>	N/A	N/A	Operation	March 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co; CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
Ventilation Outlets — Monitoring													
E13		<p>The Proponent must install monitoring equipment to monitor pollutants from the ventilation outlets. Pollutant monitoring from the ventilation outlets (by sampling and obtaining results by analysis) must be for the pollutants and parameters specified in Table 9.</p> <p>The Proponent must use the sampling method, units of measures and sample at the frequency specified in the other columns. Monitoring equipment installed under this condition is to be independently audited prior to its commencement of monitoring for compliance with the requirements set out in Table 9.</p>	No	Yes	Operation	March 2019	Yes	N/A	N/A	N/A	CSJ WCXM4 Co RMS	Not yet triggered	<p>Monitoring equipment will be installed during the construction phase of the Project, and monitoring will therefore be reported on in future QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.</p> <p>Note that the only approval role the Secretary has under this condition is for the appointment of the auditor.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence																																																													
			Stage 1	Stage 2																																																																						
		<p>Auditing is to be undertaken by an independent person(s) or organisation(s) approved by the Secretary and paid for by the Proponent. Monitoring must take place in accordance with this condition throughout operation of the SSI.</p> <p>Table 9 - Ventilation Outlet Emission Monitoring Methodologies</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Method<sup>1</sup></th> </tr> </thead> <tbody> <tr> <td>Solid particles</td> <td>mg/m<sup>3</sup></td> <td>Continuous</td> <td>Special Method 1<sup>4</sup></td> </tr> <tr> <td>Solid particles</td> <td>mg/m<sup>3</sup></td> <td>Quarterly</td> <td>TM-15</td> </tr> <tr> <td>PM<sub>10</sub></td> <td>mg/m<sup>3</sup></td> <td>Quarterly</td> <td>OM-5</td> </tr> <tr> <td>PM<sub>2.5</sub></td> <td>mg/m<sup>3</sup></td> <td>Quarterly</td> <td>OM-5</td> </tr> <tr> <td>NO<sub>2</sub> or NO or both, as NO<sub>2</sub> equivalent</td> <td>mg/m<sup>3</sup></td> <td>Continuous</td> <td>CEM-2</td> </tr> <tr> <td>NO<sub>2</sub></td> <td>mg/m<sup>3</sup></td> <td>Continuous</td> <td>CEM-2</td> </tr> <tr> <td>CO</td> <td>mg/m<sup>3</sup></td> <td>Continuous</td> <td>CEM-4</td> </tr> <tr> <td>VOC<sup>2</sup></td> <td>mg/m<sup>3</sup></td> <td>Continuous</td> <td>CEM-8</td> </tr> <tr> <td>Speciated VOC</td> <td>mg/m<sup>3</sup></td> <td>Annual</td> <td>TM-34</td> </tr> <tr> <td>Speciated PAH<sup>3</sup></td> <td>µg/m<sup>3</sup></td> <td>Annual</td> <td>OM-6</td> </tr> <tr> <th>Parameter</th> <th>Units of measure</th> <th>Frequency</th> <th>Method<sup>1</sup></th> </tr> <tr> <td>Velocity</td> <td>m/s</td> <td>Continuous</td> <td>CEM-6</td> </tr> <tr> <td>Volumetric flow rate</td> <td>m<sup>3</sup>/s</td> <td>Continuous</td> <td>CEM-6</td> </tr> <tr> <td>Moisture</td> <td>%</td> <td>Continuous</td> <td>TM-22</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Method <sup>1</sup>	Solid particles	mg/m <sup>3</sup>	Continuous	Special Method 1 <sup>4</sup>	Solid particles	mg/m <sup>3</sup>	Quarterly	TM-15	PM <sub>10</sub>	mg/m <sup>3</sup>	Quarterly	OM-5	PM <sub>2.5</sub>	mg/m <sup>3</sup>	Quarterly	OM-5	NO <sub>2</sub> or NO or both, as NO <sub>2</sub> equivalent	mg/m <sup>3</sup>	Continuous	CEM-2	NO <sub>2</sub>	mg/m <sup>3</sup>	Continuous	CEM-2	CO	mg/m <sup>3</sup>	Continuous	CEM-4	VOC <sup>2</sup>	mg/m <sup>3</sup>	Continuous	CEM-8	Speciated VOC	mg/m <sup>3</sup>	Annual	TM-34	Speciated PAH <sup>3</sup>	µg/m <sup>3</sup>	Annual	OM-6	Parameter	Units of measure	Frequency	Method <sup>1</sup>	Velocity	m/s	Continuous	CEM-6	Volumetric flow rate	m <sup>3</sup> /s	Continuous	CEM-6	Moisture	%	Continuous	TM-22												
Pollutant	Units of measure	Frequency	Method <sup>1</sup>																																																																							
Solid particles	mg/m <sup>3</sup>	Continuous	Special Method 1 <sup>4</sup>																																																																							
Solid particles	mg/m <sup>3</sup>	Quarterly	TM-15																																																																							
PM <sub>10</sub>	mg/m <sup>3</sup>	Quarterly	OM-5																																																																							
PM <sub>2.5</sub>	mg/m <sup>3</sup>	Quarterly	OM-5																																																																							
NO <sub>2</sub> or NO or both, as NO <sub>2</sub> equivalent	mg/m <sup>3</sup>	Continuous	CEM-2																																																																							
NO <sub>2</sub>	mg/m <sup>3</sup>	Continuous	CEM-2																																																																							
CO	mg/m <sup>3</sup>	Continuous	CEM-4																																																																							
VOC <sup>2</sup>	mg/m <sup>3</sup>	Continuous	CEM-8																																																																							
Speciated VOC	mg/m <sup>3</sup>	Annual	TM-34																																																																							
Speciated PAH <sup>3</sup>	µg/m <sup>3</sup>	Annual	OM-6																																																																							
Parameter	Units of measure	Frequency	Method <sup>1</sup>																																																																							
Velocity	m/s	Continuous	CEM-6																																																																							
Volumetric flow rate	m <sup>3</sup> /s	Continuous	CEM-6																																																																							
Moisture	%	Continuous	TM-22																																																																							



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence												
			Stage 1	Stage 2																					
		<table border="1"> <tr> <td>Temperature</td> <td>°C</td> <td>Continuous</td> <td>TM-2</td> </tr> <tr> <td>Other</td> <td>Units of measure</td> <td>Frequency</td> <td>Method<sup>1</sup></td> </tr> <tr> <td>Selection of sampling locations</td> <td>N/A</td> <td>N/A</td> <td>TM-1</td> </tr> </table> <p>Notes:</p> <ol style="list-style-type: none"> <li>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA 2007) or an alternative method approved by the Secretary in consultation with the EPA.</li> <li>Must include, but not be limited to: Benzene, Toluene, Xylenes, 1,3-Butadiene, Formaldehyde and Acetaldehyde.</li> <li>Must include, but not limited to; 16 USEPA priority PAHs, namely; Naphthalene, Phenanthrene, Benz(a)anthracene, Benzo(a)pyrene, Acenaphthylene, Anthracene, Chrysene, Indeno(1,2,3-cd)pyrene, Acenaphthene, Fluoranthene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Fluorene, Pyrene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene.</li> <li>Special Method 1 means a method approved by the Secretary in consultation with the EPA.</li> </ol>	Temperature	°C	Continuous	TM-2	Other	Units of measure	Frequency	Method <sup>1</sup>	Selection of sampling locations	N/A	N/A	TM-1											
Temperature	°C	Continuous	TM-2																						
Other	Units of measure	Frequency	Method <sup>1</sup>																						
Selection of sampling locations	N/A	N/A	TM-1																						
Ventilation Outlets — Limits																									
E14		The concentration of a pollutant discharged from the ventilation outlets referred to must not exceed the respective limits specified for that pollutant in Table 10.	N/A	N/A	Operation	March 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	<p>Detailed design of the ventilation system is being undertaken between February and September 2016. A draft Ventilation Report has been completed (due for FD in August 2016) and notes that the current design is compliant with this condition.</p> <p>As the design continues to develop compliance will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.</p>												



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence																													
			Stage 1	Stage 2																																						
		<p>Table 10 - Ventilation Outlets - Limits</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>100 percentile limit</th> <th>Units of measurement</th> <th>Averaging period</th> <th>Reference conditions</th> </tr> </thead> <tbody> <tr> <td>Solid particles</td> <td>1.1</td> <td>mg/m<sup>3</sup></td> <td>1 hour, or the minimum sampling period specified in the relevant test method, whichever is the greater</td> <td>Dry, 273K, 101.3 kPa</td> </tr> <tr> <td>NO<sub>2</sub> or NO or both, as NO<sub>2</sub> equivalent</td> <td>20</td> <td>mg/m<sup>3</sup></td> <td>1 hour block</td> <td>Dry, 273K, 101.3 kPa</td> </tr> <tr> <td>NO<sub>2</sub></td> <td>2.0</td> <td>mg/m<sup>3</sup></td> <td>1 hour block</td> <td>Dry, 273K, 101.3 kPa</td> </tr> <tr> <td>CO</td> <td>40</td> <td>mg/m<sup>3</sup></td> <td>1 hour rolling</td> <td>Dry, 273K, 101.3 kPa</td> </tr> <tr> <td>VOC (as propane)</td> <td>4.0</td> <td>mg/m<sup>3</sup></td> <td>1 hour rolling</td> <td>Dry, 273K, 101.3 kPa</td> </tr> </tbody> </table>	Pollutant	100 percentile limit	Units of measurement	Averaging period	Reference conditions	Solid particles	1.1	mg/m <sup>3</sup>	1 hour, or the minimum sampling period specified in the relevant test method, whichever is the greater	Dry, 273K, 101.3 kPa	NO <sub>2</sub> or NO or both, as NO <sub>2</sub> equivalent	20	mg/m <sup>3</sup>	1 hour block	Dry, 273K, 101.3 kPa	NO <sub>2</sub>	2.0	mg/m <sup>3</sup>	1 hour block	Dry, 273K, 101.3 kPa	CO	40	mg/m <sup>3</sup>	1 hour rolling	Dry, 273K, 101.3 kPa	VOC (as propane)	4.0	mg/m <sup>3</sup>	1 hour rolling	Dry, 273K, 101.3 kPa										This also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
Pollutant	100 percentile limit	Units of measurement	Averaging period	Reference conditions																																						
Solid particles	1.1	mg/m <sup>3</sup>	1 hour, or the minimum sampling period specified in the relevant test method, whichever is the greater	Dry, 273K, 101.3 kPa																																						
NO <sub>2</sub> or NO or both, as NO <sub>2</sub> equivalent	20	mg/m <sup>3</sup>	1 hour block	Dry, 273K, 101.3 kPa																																						
NO <sub>2</sub>	2.0	mg/m <sup>3</sup>	1 hour block	Dry, 273K, 101.3 kPa																																						
CO	40	mg/m <sup>3</sup>	1 hour rolling	Dry, 273K, 101.3 kPa																																						
VOC (as propane)	4.0	mg/m <sup>3</sup>	1 hour rolling	Dry, 273K, 101.3 kPa																																						
Ventilation Outlets — Limits — Optimisation																																										
E15	(a)	An independent person or organisation approved by the Secretary must: verify that compliance with ventilation outlet limits detailed in Table 10 will:	N/A	N/A	Operation	TBC	Yes	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in future QCCR and the Pre-Operational																													



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		(i) supplement/not preclude compliance with the predicted air quality outcomes presented in the documents listed in conditions A2(b) and A2(c), and (ii) not result in air quality impacts greater than predicted in the documents listed in conditions A2(b) and A2(c);` (b) undertake an appropriate assessment to indicate how ventilation outlet discharge velocities have been optimised in consideration of energy requirements and air quality impacts at all sensitive receivers; and, (c) validate recorded monitoring data and certify compliance with the ventilation outlet limits.  The information required in paragraphs (a) - (c) in this condition will be made available to the Secretary on request.  The ventilation outlet limits detailed in Table 10 must be reviewed on a five-yearly basis and may be lowered (i.e. made more stringent), subject to a sustainability assessment and there being improvements in vehicle fleet emissions, if the Proponent is directed to do so by the Secretary following consultation with the EPA.											Compliance Report referred to in Section 2.3 of this QCCR. Note that the only approval role the Secretary has under this condition is for the appointment of the independent entity.
Ventilation Outlets — Notification and Reporting													
E16		Should the results of monitoring show that any of the ventilation outlet limits specified in conditions E14 have been exceeded, the Proponent must immediately notify the Secretary, EPA and NSW Health. The notification must be followed up with a detailed report within 20 working days, which must be prepared by the Proponent, reviewed by a suitably qualified and experienced independent specialist(s), and submitted to the Secretary, on the cause and major contributor of the exceedance and the options available to prevent recurrence. The Secretary must approve the independent person/organisation prior to the commencement of operation, or at some other time prior to preparation of the report.  Where the operation of the tunnel is identified to be a significant contributor to the recorded exceedance, this report must include consideration of improvements to the tunnel air quality management system so as to achieve compliance with the ambient air quality goals, including but not limited to	N/A	N/A	Operation	March 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>installation of the additional ventilation management facilities allowed for under condition B5, and discussion of whether those improvements are feasible and reasonable.</p> <p>The Proponent must comply with any requirements arising from the Secretary's review of the Report.</p>											
<b>Emergency Discharge</b>													
E17		<p>Conditions E2, E3, E4, E9 and E14 do not apply in an emergency (as defined in the OEMP required by condition E26).</p> <p>The Proponent must, as soon as reasonably practicable, notify the Secretary and the EPA of any such discharge.</p>	N/A	N/A	Operation	Noted.	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	<p>Detailed design of the ventilation system is being undertaken between February and September 2016. A draft Ventilation Report has been completed (due for FD in August 2016) and notes that the current design is compliant with this condition.</p> <p>As the design continues to develop compliance will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.</p> <p>This also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.</p>
<b>Local and Sub-Regional Air Quality</b>													
E18		<p>The Proponent must assist the relevant council(s) in developing an air quality assessment process for inclusion in a Development Control Plan or other appropriate planning instrument, in considering planning and building approvals for new development in the area adjacent to the eastern and western ventilation outlets which would be within a potential three-dimensional zone of affectation (buffer volume). This process must include procedures for identifying the width and height of buildings that are likely to be either affected by the plume from the ventilation outlet or affect the dispersion of the plume from the ventilation outlet through building wake effects. The Proponent must meet all reasonable costs for the development of this process and any necessary amendments to the planning instrument(s) required to implement the process.</p>	N/A	N/A	Operation	March 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	<p>This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.</p>





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
E19		Prior to operation, the Proponent must investigate, in consultation with the EPA the measures for smoky vehicle enforcement in areas surrounding the SSI, taking into consideration cost effectiveness. Any measures implemented as a result of investigation recommendations must be in accordance with current RMS smoky vehicle enforcement programs. The effectiveness of the smoky vehicle enforcement measures must be documented in the Independent Environmental Audit required under condition E46.	N/A	N/A	Operation	March 2019	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
Air Quality — General Reporting													
E20		The Proponent must develop and implement a reporting system for in-tunnel, ambient and ventilation outlet limits in consultation with the EPA. The reporting system must be approved by the Secretary and fully implemented and operational prior to operation. Minimum analytical reporting requirements for air pollution monitoring stations must be as specified in the <i>Approved Methods of Modelling and Assessment of Air Pollutants in NSW</i> (EPA 2007, or as updated).	No	Yes	Operation	February 2019	Yes	TBC	TBC	TBC	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
Air Quality — Public Access to Monitoring Results													
E21		Results of hourly updated real-time ambient monitoring of PM10, PM2.5, visibility, NO2, and CO at the approved monitoring stations, in-tunnel CO/NO2 and ventilation outlet measurements, and relevant meteorological data, must be provided on a website and made publicly available each month in hard copy format in an easy to interpret format. This data must be preliminary until a quality assurance check has been undertaken by a person or organisation accredited by NATA for this purpose. The availability of this data must be conveyed to the local community by way of newsletter (including translation into common community languages in the area) and newspaper advertisement at least one month prior to the commencement of operation.	N/A	N/A	Operation	March 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in future QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
Air Quality — Auditing and Quality Assurance													
E22		The provision, operation and maintenance (including all auditing and validation of data) of all air quality monitoring and reporting must be funded by the Proponent.	N/A	N/A	Operation	Noted.	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
E23		All continuous emissions monitoring systems installed and operated as a requirement of condition E13 must undergo relative accuracy test audits at an interval not exceeding 12 months, or as otherwise agreed to by the Secretary in consultation with the EPA.	N/A	N/A	Operation	March 2020	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
E24		The Proponent must appoint an external auditor to conduct an audit of the air quality monitoring (in tunnel and external) at six-monthly intervals or at any longer interval if approved by the Secretary. Air quality audits must commence six months from commencement of operation. The auditor must ensure that the operating procedures and equipment to acquire air monitoring, meteorological data and emission monitoring data and monitoring reporting comply with NATA (or equivalent) requirements and sound laboratory practice. The Proponent must document the results of the audit and make available all audit data for inspection by the Secretary upon request. A copy of the audit report must also be issued to the Proponent and AQCCC. The auditor must be approved by the Secretary in consultation with the EPA and the AQCCC, and the auditor's report must be directly provided to the Proponent and the AQCCC.	No	Yes	Pre-Operation Operation	March 2018	Yes	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the pre-operation and operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.  Note that the only approval role the Secretary has under this condition is for the appointment of the independent entity.
E25		The Proponent must undertake appropriate quality assurance (QA) and quality control (QC) measures for air quality and ventilation outlet emission monitoring data. This must include, but not be limited to: accreditation/quality systems, staff qualifications and training, auditing, monitoring procedures, service and maintenance, equipment or system malfunction and records/reporting. The QA/QC measures must be approved by an independent expert approved by the Secretary prior to monitoring of air quality and ventilation outlet emissions as appropriate.	N/A	N/A	Operation	March 2018	Yes	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.  Note that the only approval role the Secretary has under this condition is for the appointment of the independent expert.
<b>OPERATION ENVIRONMENTAL MANAGEMENT PLAN</b>													
E26		Prior to the commencement of operation, or as otherwise agreed by the Secretary, the Proponent must prepare and implement an Operation Environmental Management Plan (OEMP) for the SSI. The OEMP must outline the environmental management practices and procedures that are to be followed during operation, and must be prepared in	N/A	Yes	Pre-Operation Operation	February 2019	Yes	TBC	TBC	TBC	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the pre-operation and operational phase of the Project and will be reported on in future QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>consultation with relevant agencies and in accordance with the <i>Guideline for the Preparation of Environmental Management Plans</i> (Department of Infrastructure, Planning and Natural Resources, 2004). The OEMP must include, but not be limited to:</p> <p>(a) a description of activities to be undertaken during operation of the SSI (including staging and scheduling);</p> <p>(b) statutory and other obligations that the Proponent is required to fulfil during operation, including approvals, consultations and agreements required from authorities and other stakeholders under key legislation and policies;</p> <p>(c) overall environmental policies, guidelines and principles to be applied to the operation of the SSI;</p> <p>(d) a description of the roles and responsibilities for relevant employees involved in the operation of the SSI, including relevant training and induction provisions for ensuring that employees are aware of their environmental and compliance obligations under these conditions of approval;</p> <p>(e) an environmental risk analysis to identify the key environmental performance issues associated with the operation phase;</p> <p>(f) details of periodic testing of the tunnel ventilation system;</p> <p>(g) a definition of emergency as it applies to conditions B4., E17 and E39; and</p> <p>(h) details of how environmental performance would be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts, including those safeguards and mitigation measures detailed in Section 8 the document referred to in condition A2(c) (and any impacts arising from the staging of the construction of the SSI). In particular, the following environmental performance issues must be addressed in the OEMP:</p> <ul style="list-style-type: none"> <li>i. air quality;</li> <li>ii. noise and vibration, through preparation of the Operational Noise</li> </ul>											



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>Management Plan required under condition E29;</p> <ul style="list-style-type: none"> <li>iii. traffic;</li> <li>iv. climate change and energy use;</li> <li>v. visual amenity and landscaping;</li> <li>vi. groundwater level/pressure, inflows, treatment and discharge, soil, and subsidence; and</li> <li>vii. surface water quality and hydrology, including stormwater management.</li> </ul> <p>The OEMP must be submitted for the approval of the Secretary no later than one month prior to the commencement of operation, or as otherwise agreed by the Secretary. Operation must not commence until written approval of the OEMP has been received from the Secretary.</p> <p><i>Note:</i> The approval of an OEMP does not relieve the Proponent of any requirement associated with this SSI approval. If there is an inconsistency with an approved OEMP and the conditions of this SSI approval, the requirements of this SSI approval prevail.</p>											
<b>OPERATIONAL NOISE AND VIBRATION</b>													
E27		The SSI must be designed and operated with the objective of meeting the requirements of the <i>NSW Road Noise Policy</i> (DECCW, 2011) and must include the provision of at-property treatment to all affected receivers in multi-level dwellings where the project noise criteria are exceeded, unless otherwise agreed to by the owner of the noise-affected residence.	No	Yes	Detailed Design Operation	Ongoing	No	N/A	N/A	N/A	WCXM4 Co CSJ	Not yet triggered	This CoA applies to the detailed design of the Project which is being undertaken between March and December 2016. Compliance against this condition will be assessed in the Operational Noise and Vibration Review, which will be lodged with the Secretary within six months of commencing construction (22 October 2016).  It also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
E28		The Proponent must design and operate all fixed facilities, including the tunnel portals; ventilation facilities and the emergency smoke extraction outlets with the objective of not exceeding the requirements of the NSW Industrial Noise Policy (EPA, 2000) and the Sleep Disturbance Application Note to the NSW Industrial Noise Policy. The Proponent	No	Yes	Detailed Design Operation	Ongoing	No	N/A	N/A	N/A	WCXM4 Co CSJ	Not yet triggered	This CoA applies to the detailed design of the Project which is being undertaken between March and December 2016. Compliance against this condition will be assessed in the Operational Noise and Vibration Review, which will be lodged with the



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		must apply mitigation at existing receivers where the noise requirements cannot be achieved.											Secretary within six months of commencing construction (22 October 2016). It also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
E29		<p>A detailed Operational Noise Management Plan must be prepared as part of the Operational Environmental Management Plan required by condition E29 and submitted to the Secretary for approval. The Operational Noise Management Plan must provide details of noise and vibration control measures to be undertaken during the operation stages, sufficient to address the technical requirements of the EPA, and generally in accordance with the <i>NSW Road Noise Policy</i> (DECCW, 2011) and the <i>NSW Industrial Noise Policy</i> (EPA, 2000).</p> <p>The Operational Noise Management Plan must include, but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) tests for ascertaining acoustic parameters;</li> <li>(b) predicted noise levels;</li> <li>(c) noise criteria for operation of the project based on the objectives of the <i>NSW Road Noise Policy</i> (DECCW, 2011) and the <i>NSW Industrial Noise Policy</i> (EPA, 2000);</li> <li>(d) location, type and timing of erection of permanent noise barriers and/or other noise mitigation measures demonstrating best practice including silencers and building treatments for associated plant rooms and enclosures for exposed plant;</li> <li>(e) specific physical and managerial measures for controlling noise;</li> <li>(f) noise monitoring, reporting and response procedures including the monitoring on surrounding roads which experience significantly increased traffic volumes as a result of the project, and including operational facilities;</li> <li>(g) procedures for operational noise and vibration complaints management, including investigation and monitoring (subject to complainant agreement); and</li> </ul>	No	Yes	Detailed Design Operation	February 2019	Yes	TBC	TBC	TBC	WCXM4 Co CSJ	Not yet triggered	<p>This CoA applies to the detailed design of the Project which is being undertaken between March and December 2016. An Operational Noise Management Plan will be lodged with the Secretary for approval prior to commencing operation.</p> <p>It also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.</p>



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence	
			Stage 1	Stage 2										
	(h)	<p>an Operational Ancillary Facility Noise Management Sub-Plan including, but not limited to –</p> <ul style="list-style-type: none"> <li>i. identification of the final location of all operational ancillary facilities and plant including the Motorway Complex, ventilation facilities, tunnel jet fans and water treatment plants,</li> <li>ii. the sound power levels of all chosen equipment and plant to be utilised during operation including spectral sound characteristics and frequency data,</li> <li>iii. identification and/or confirmation of sensitive receivers and appropriate categorisation of the surrounding area in accordance with the INP,</li> <li>iv. identification of the applicable noise goals, including spectral frequency, for all sensitive receivers identified as being potentially impacted by any operational ancillary facility,</li> <li>v. presentation of noise assessment and predicted impacts including the use of mapping and noise contours,</li> <li>vi. identification and implementation of appropriate mitigation measures including building treatment, site layout, attenuators and demonstration that chosen mitigation measures can adequately achieve relevant noise goals, and</li> <li>vii. details of maintenance and inspection schedules to ensure plant, equipment and other operational ancillary facilities are operating at optimal levels; and</li> <li>viii. mechanisms for the monitoring and review of the Operational Noise Management Plan.</li> </ul>												
	(i)	mechanisms for the monitoring and review of the Operational Noise Management Plan.												
E30	(a)	<p>For the purpose of assessment of noise criteria specified in the Operational Noise Management Plan required under condition E29, noise from the development arising from ventilation facilities and plant must be:</p> <p>measured at the most affected point on or within the site boundary at the most sensitive</p>	N/A	N/A	Operation	From 2019 – ongoing	Yes	TBC	TBC	TBC	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the detailed design of the Project which is being undertaken between March and December 2016. Compliance against this condition will be included in the Operational Noise Management Plan which will be lodged with the Secretary for	



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(b)  (c)	locations to determine compliance with LAeq,T noise limits;  measured in the free field at least three to five metres from any vertical reflecting surface in line with the worst-affected dwelling facade to determine compliance with LAmax noise limits; and  subject to the modification factors provided in Section 4 of the <i>NSW Industrial Noise Policy</i> (EPA, 2000), where applicable.  Notwithstanding, should direct measurement of noise from the fixed facilities be impractical, the Proponent may employ an alternative noise assessment method deemed acceptable by the EPA (refer to Section 11 of the <i>NSW Industrial Noise Policy</i> (EPA, 2000)). Details of such an alternative noise assessment method accepted by the EPA must be submitted to the Secretary prior to the implementation of the assessment method.											approval prior to commencing operation.  It also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
E31		Monitoring of operational noise must be undertaken in accordance with the Operational Noise Management Plan.	N/A	N/A	Operation	From 2019 – ongoing	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
E32		The Proponent must design and operate the SSI with the objective, where feasible and reasonable, of not exceeding the vibration goals for human exposure for existing receivers, as presented in <i>Assessing vibration: a technical guideline</i> (DECC, 2006).	No	Yes	Detailed Design Operation	Ongoing	No	N/A	N/A	N/A	WCXM4 Co CSJ	Not yet triggered	This CoA applies to the detailed design of the Project which is being undertaken between March and December 2016. Compliance against this condition will be assessed in the Operational Noise and Vibration Review, which will be lodged with the Secretary within six months of commencing construction (22 October 2016).  It also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
E33		Unless otherwise agreed by the Secretary, within six months of commencing construction, the Proponent must prepare an Operational Noise and Vibration Review (ONVR) to confirm noise and vibration control measures that would be implemented for the project. The ONVR must be prepared	No	Yes	6 months after construction commencement.	October 2016	Yes	TBC	TBC	TBC	CSJ WCXM4 Co	Not yet triggered	Detailed design for the project is currently being completed. The Operational Noise and Vibration Review will be lodged with the Secretary within six months of



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(a)	in consultation with the Department, the EPA, relevant councils, other relevant stakeholders and the community and must: confirm the appropriate operational noise and vibration objectives and levels for adjoining development, including existing sensitive receivers;											commencing construction (22 October 2016).
	(b)	confirm the appropriate operational noise and vibration objectives and levels for adjoining development, including existing sensitive receivers;											
	(c)	confirm the operational noise and vibration impacts at adjoining development based on the final design of the project, including operational daytime $L_{Aeq\ 15\ hour}$ and night-time $L_{Aeq\ 9\ hour}$ traffic noise contours;											
	(d)	review the suitability of the operational noise mitigation measures identified in the documents listed at conditions A2(b) and A2(c) and, where necessary, investigate and identify additional feasible and reasonable noise and vibration mitigation measures required to achieve the noise criteria outlined in the <i>NSW Road Noise Policy</i> (DECCW, 2011) and <i>NSW Industrial Noise Policy</i> (EPA, 2000), including the timing of implementation; and											
	(e)	include a consultation strategy to seek feedback from directly affected property owners (including educational institutions) on the noise and vibration mitigation measures.  The ONVR is to be verified by a suitably qualified and experienced noise and vibration expert. The scope of the verification exercise undertaken by the noise and vibration expert is to be developed by the Proponent in consultation with EPA. The ONVR is to be submitted to the Secretary for approval prior to the commencement of construction of physical noise mitigation structures, unless otherwise agreed by the Secretary.  The Proponent must implement the identified noise and vibration control measures and make the ONVR publicly available.											
E34		Within 12 months of the commencement of the operation of the SSI, or as otherwise agreed by the Secretary, the Proponent must undertake operational noise and vibration monitoring to compare the actual noise and	N/A	N/A	Operation	Early 2020	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report





Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		<p>vibration performance of the SSI against the noise performance predicted in the Operational Noise and Vibration Review required by condition E33 and the documents referred to in conditions A2(b) and A2(c). Development of the monitoring program must be undertaken in consultation with the EPA. The monitoring program must be documented in an Operational Noise and Vibration Compliance Report. The Operational Noise and Vibration Compliance Report must include, but not be limited to:</p> <p>(a) details of the noise and vibration monitoring program including methodology, location and frequency of noise monitoring;</p> <p>(b) results of the monitoring program and an assessment of these against the operational noise criteria specified in the Operational Noise Management Plan required by condition E29 and noise levels predicted in the Operational Noise Review required by condition E33 and the documents referred to in conditions A2(b) and A2(c);</p> <p>(c) details of any complaints received relating to operational noise and vibration impacts;</p> <p>(d) any required calibration of the noise and vibration model taking account considerations such as traffic numbers and land use change (if applicable);</p> <p>(e) an assessment of the performance and effectiveness of the applied noise and vibration mitigation measures with regard to the operational noise criteria specified in the Operational Noise Management Plan required by condition E29; and</p> <p>(f) identification of any further feasible and reasonable noise and vibration mitigation measures required to meet the noise criteria specified in the Operational Noise Management Plan, where the criteria are exceeded.</p> <p>The Proponent must provide the Secretary and the EPA with a copy of the Operational Noise and Vibration Compliance Report within 60 days of completing the operational noise monitoring, or as otherwise agreed by the Secretary.</p>											referred to in Section 2.3 of this QCCR.
E35		The Proponent must implement further feasible and reasonable mitigation measures	N/A	N/A	Operation	Early 2020	No	N/A	N/A	N/A	WCXM4 Co RMS	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the Pre-



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		(where required) as identified in the Operational Noise and Vibration Compliance Report in consultation with affected property owners.									CSJ		Operational Compliance Report referred to in Section 2.3 of this QCCR.
<b>TRANSPORT AND ACCESS</b>													
E36		At both 12 months and 5 years after the commencement of operation of the SSI, or as otherwise agreed to by the Secretary, the Proponent must prepare a Road Network Performance Review Plan in consultation with relevant councils that includes:  (a) an updated analysis, including modelling of traffic impacts to the adjoining road network (including impacts on local roads and rat-running), as a consequence of the SSI. This must include a review of new information available about potential land use changes, including those associated with the <i>Draft Parramatta Road Urban Transformation Strategy</i> (Transport for NSW, 2015, or as updated), and any traffic changes as a result of other major road projects within the project area;  (b) further detailed investigations at the following intersections or sections of the road network –  i. potential 'pinch-points' at the Parramatta Road and Wattle Street Interchanges where merging of tunnel exit traffic and surface traffic would occur,  ii. Parramatta Road/George Street,  iii. Parramatta Road/Pomeroy Street,  iv. Parramatta Road/Frederick Street/Wattle Street,  v. Parramatta Road/Concord Road,  vi. Concord Road/Patterson Street/Sydney Street,  vii. the intersection of the Concord Road off-ramps and Parramatta Road, and  viii. the intersection of the Pomeroy Street on- ramp and Parramatta Road;  (c) updated consideration of potential mitigation measures to manage any predicted traffic performance deficiencies, particularly on Parramatta Road and in association with the investigations undertaken within E36(b);	N/A	N/A	Operation	2020 and 2025	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
	(d) (e) (f) (g)	<p>details on bus priority measures;</p> <p>the predicted traffic performance improvements from these measures, including any cumulative improvements;</p> <p>justification of why the predicted 'do minimum' performance of any intersection on the adjoining road network cannot be maintained (if necessary); and</p> <p>an updated description and proposed timing of potential mitigation measures.</p> <p>The Proponent is responsible for the implementation of the identified measures, if required.</p> <p>The Road Network Performance Review Plan must be submitted to the Secretary, Transport for NSW (in relation to impacts on bus services) and to relevant council(s) within 60 days of its completion and made publicly available.</p> <p>The purpose of the Road Network Performance Review Plan is to optimise road network performance including public transport access and times, and manage the performance impacts of the SSI on the adjoining road network by identifying or confirming mitigation improvements that could be required in areas where traffic performance may be unsatisfactory at time of completion of construction.</p> <p><i>Note:</i> <i>Identified mitigation measures may need to be further assessed under the Environmental Planning and Assessment Act, 1979. Works will need to meet relevant design standards and be subject to independent road safety audits.</i></p>											
E37		<p>The Proponent must liaise with relevant councils and UrbanGrowth NSW during detailed design to improve integration of the project with the local and regional road network in relation to the <i>Draft Parramatta Road Urban Transformation Strategy</i> (Transport for NSW, 2015, or as updated). The outcomes of this consultation will be reported and incorporated in the Road Network Performance Review Plan required under condition E36.</p>	No	Yes	Detailed Design	12 months after commencement of operation.	No	N/A	N/A	N/A	CSJ WCXM4 Co	Not yet triggered	This CoA applies to the detailed design of the Project which is due to be undertaken between April 2016 and mid-2017 and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.
URBAN DESIGN AND VISUAL AMENITY													



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
E38		The ongoing maintenance and operation costs of urban design and landscaping items and works implemented as part of this infrastructure approval must remain the Proponent's responsibility until satisfactory arrangements have been put in place for the transfer of the asset to the relevant authority. Prior to the transfer of assets, the Proponent will maintain items and works to the design standards established in the Urban Design and Landscape Plan required by condition B45	N/A	N/A	Operation	Post construction	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the pre-operation phase of the Project and will be reported on in the future QCCRs as detailed within Section 2.3 of this QCCR.
<b>HAZARDS AND RISK</b>													
E39		<p>Six months prior to operation, the Proponent must prepare an Emergency Response Plan, in consultation with FRNSW and NSW Police Force.</p> <p>The Emergency Response Plan must include, but not be limited to:</p> <p>(a) protocols and procedures to be followed during emergency situations associated with the operation of the project (including fires, explosions and, for the purposes of this condition, vehicle collisions). The protocols and procedures are to take into account the needs of people with a disability or who may experience access problems in emergency situations;</p> <p>(b) details of traffic management measures to be implemented during emergencies, where appropriate, to minimise the potential for escalation of the emergency;</p> <p>(c) design and management measures to address the potential environmental impacts of an emergency situation, including measures for containment of contaminated fire-fighting water, fuel spills and gaseous combustion products;</p> <p>(d) details of a training and testing program to ensure that</p> <ol style="list-style-type: none"> <li>i. all operational staff are familiar with the Emergency Response Plan, and</li> <li>ii. coordination with FRNSW and NSW Police is regularly exercised; and</li> </ol> <p>(e) provision for a simulated emergency response exercise, including the Proponent, FRNSW and NSW Police, to be conducted in accordance with the approved Emergency Response Plan on at least one occasion at</p>	No	Yes	Pre-Operation	Late 2018	No	N/A	N/A	N/A	CSJ WCXM4 Co	Not yet triggered	This CoA applies to the pre-operation phase of the Project and will be reported on in future QCCR referred to in Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		least one month prior to the opening of the tunnels to traffic. The time for the exercise is to be agreed by the participants, and FRNSW and NSW Police are to be provided with at least one month prior notification of any proposed time.											
E40		<p>Fire simulation and hot smoke testing must be undertaken as part of the simulated emergency response exercise to be staged prior to opening of the project to traffic as required in condition E39(e).</p> <p>The Proponent must respond in writing to any recommendations made by FRNSW as a result of the exercise. Any outstanding concerns are to be resolved between FRNSW and the Proponent.</p>	N/A	N/A	Pre-Operation	Early 2019	No	N/A	N/A	N/A	CSJ WCXM4 Co	Not yet triggered	This CoA applies to the pre-operation phase of the Project and will be reported on in future QCCRs which will be prepared in accordance with Section 2.3 of this QCCR
E41		<p>The Proponent must undertake annual Hazard Reviews of the project for the first five years of operation. The Hazard Review must detail all hazardous incidents that have occurred during the preceding period, as per (i) to (iii) below, identify safety measures required to rectify those incidents, and address any ongoing issues.</p> <ol style="list-style-type: none"> <li>i. The first Hazard Review must be undertaken for the first three months of operation after the opening of the project to traffic.</li> <li>ii. Subsequent Hazard Reviews must be undertaken for the following nine months and thereafter twelve monthly intervals.</li> <li>iii. FRNSW may also direct the Proponent to undertake a Hazard Review following any major incident in the tunnel.</li> </ol> <p>A Hazard Review Report, outlining the results of a Hazard Review, and any proposed additional safety measures to be implemented in response to the findings of the Hazard Review, must be submitted to FRNSW no later than one month after the review period.</p> <p>The Proponent must respond in writing to any recommendation made by FRNSW in relation to the findings of a Hazard Review, within such time as may be agreed by FRNSW. Any outstanding concerns are to be resolved between FRNSW and the Proponent.</p>	N/A	N/A	Operation	2019	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report referred to in Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
E42		<p>The Proponent must develop a Fire Engineering Brief and Fire Engineering Report to address fire and life safety in the tunnel, in consultation with FRNSW. The documents must outline fire protection systems and other tunnel equipment, systems, and operational protocols required for fire and smoke management.</p> <p>In developing the Fire Engineering Brief and Fire Engineering Report, the Proponent must undertake a detailed fire engineering study in accordance with Australian Building Codes Board codes and guides, and Fire Safety Engineering Guidelines. Detailed design of the tunnel must incorporate the design and operational measures developed in the fire engineering study to minimise the potential for, and effect of, fire and hazardous material incidents in the tunnel.</p> <p>The final design of the tunnel in relation to the fire and life safety features must be verified against the fire engineering study in consultation with FRNSW by an Accredited Fire Engineer.</p> <p>The Proponent must respond in writing to any recommendation made by FRNSW in relation to the Fire Engineering Brief and Fire Engineering Report, within such time as may be agreed by FRNSW. Any outstanding concerns are to be resolved between FRNSW and the Proponent.</p>	N/A	Yes	Pre-Operation	Early 2019	No	N/A	N/A	N/A	CSJ WCXM4 Co	Not yet triggered	This CoA applies to the pre-operation phase of the Project and will be reported on in future QCCRs which will be prepared in accordance with Section 2.3 of this QCCR
E43		<p>Prior to the opening of the project to traffic, a full audit of the fire and life safety system as defined by the fire engineering study developed in condition E42 above must be undertaken by an Accredited Fire Engineer. The objective of the audit must be to ensure that all design and operational measures outlined in the fire engineering study have been installed, are operational, and achieve the required design criteria.</p> <p>The results of the audit must be submitted to FRNSW prior to opening of the project to traffic. The Proponent must respond in writing to any recommendations resulting from FRNSW review of the audit. Any outstanding concerns are to be resolved between FRNSW and the Proponent.</p>	No	Yes	Pre-Operation	Early 2019	No	N/A	N/A	N/A	CSJ WCXM4 Co	Not yet triggered	This CoA applies to the pre-operation phase of the Project and will be reported on in future QCCRs which will be prepared in accordance with Section 2.3 of this QCCR
E44		<p>A detailed maintenance-testing program outlining the methods of testing the fire and life safety systems and schedule for implementation must be developed in</p>	No	Yes	Pre-Operation	Early 2019	No	N/A	N/A	N/A	CSJ WCXM4 Co	Not yet triggered	This CoA applies to the pre-operation phase of the Project and will be reported on in future QCCRs which will be prepared in



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence
			Stage 1	Stage 2									
		consultation with FRNSW prior to opening of the project to traffic. The Proponent must respond in writing to any recommendations made by FRNSW. Any outstanding concerns are to be resolved between FRNSW and the Proponent.											accordance with Section 2.3 of this QCCR
E45		Maintenance testing of fire and life safety systems must be undertaken at least annually, or any other interval as required by the design engineer and to the satisfaction of FRNSW. Results of maintenance testing must be made available to FRNSW for review, and the Proponent must respond in writing to any recommendations from FRNSW to ensure the reliability of the fire and life safety systems. Any outstanding concerns are to be resolved between FRNSW and the Proponent.	N/A	N/A	Operation	2019 onwards	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report which will be prepared in accordance with Section 2.3 of this QCCR
<b>INDEPENDENT ENVIRONMENTAL AUDIT</b>													
E46		Within 12 months of the commencement of operation, and at any other stage required by the Secretary, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the SSI. The Independent Environmental Audit must: <ul style="list-style-type: none"> <li>(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been approved by the Secretary;</li> <li>(b) include consultation with the relevant agencies and relevant councils;</li> <li>(c) assess the environmental performance of the SSI and assess whether it is complying with the requirements in this approval, and any other relevant approvals (including any assessment, plan or program required under these approvals);</li> <li>(d) review the accuracy of predicted environmental outcomes discussed in the documents listed in conditions A2(b) and A2(c);</li> <li>(e) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals in (c); and</li> <li>(f) recommend measures or actions to improve the environmental performance of the SSI,</li> </ul>	N/A	N/A	Operation	12 months after commencement of operation	No	N/A	N/A	N/A	WCXM4 Co RMS CSJ	Not yet triggered	This CoA applies to the operational phase of the Project and will be reported on in the QCCR and Pre-Operational Compliance Report which will be prepared in accordance with Section 2.3 of this QCCR.



Ref	Sub-ref	CoA	Relevant to		Timing	Date Completed	Secretary's Approval required?	Date Final Document Lodged	Date Amended Document Lodged	Date of Secretary Approval	Responsibility	Compliance status	Comment / evidence	
			Stage 1	Stage 2										
		<p>and/or any strategy, plan or program required under these approvals.</p> <p>Within 60 days of commissioning the Independent Environmental Audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary and relevant public authorities, together with its response to any recommendations contained in the audit report.</p> <p>Notes:</p> <ol style="list-style-type: none"> <li><i>This audit team must be led by a suitably qualified and experienced auditor, and include experts in air quality, biodiversity, noise and vibration, hydrology and any other fields specified by the Secretary.</i></li> <li><i>The audit may be staged to suit the staged operation of the SSI.</i></li> </ol>												





# Annexure B Revised environmental management measures



Note: Within the responsibility column – the Proponent is RMS; Project Company is WCXM4 Co; the Contractor is CSJ

Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
TT1	A Traffic Management and Safety Plan (TMSP) will be prepared as part of the construction environmental management plan (CEMP), in consultation with the relevant road authority, local councils, emergency services, road user groups and pedestrian and bicycle groups. The TMSP will include the guidelines, general requirements and principles of traffic management to be implemented during construction. It will be prepared in accordance with <i>Austrroads Guide to Road Design</i> (with appropriate Roads and Maritime supplements), the <i>RTA Traffic Control at Work Sites manual</i> and <i>AS1742.3: Manual of uniform traffic control devices – Part 3: Traffic control for works on roads</i> , and any other relevant standard, guide or manual. It will seek to minimise delays and disruptions, and identify and respond to any changes in road safety as a result of highway construction works.	Pre-Construction and construction	CSJ	Complete	A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM. The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&E on 15 April 2016.  The TAMP has been prepared in consultation with the local councils, emergency services, road user groups and pedestrian and bicycle groups.  A Traffic Management and Safety Plan (TMSP), which is a sub-plan of the Project Management Plan, has been approved by RMS and TMC. The TAMP is a sub-plan of the CEMP and is informed by the TMSP.
TT2	The TMSP will include: <ul style="list-style-type: none"> <li>• A traffic route and haulage management plan</li> <li>• Site traffic and access management plans</li> <li>• An incident response plan</li> <li>• A detailed travel management plan for construction staff at the various worksites, in consultation with local councils and stakeholders associated with the sporting facilities adjacent to the project site. This</li> </ul>	Pre-Construction and construction	CSJ	Complete	A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.  These measures are addressed in Sections 6.3, 6.3, 6.5, 6.8 and 7 of the TAMP.  The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&E on 15 April 2016.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	will include the promotion of public transport and car-pooling to reduce work site-related vehicle movements, and also investigate feasible options for the provision of off-site car parking to reduce parking on local roads.				
TT3	Construction and temporary works will be staged to avoid conflicts with the existing road network and maximise spatial separation between work areas and travel lanes.	Construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.</p> <p>These measures are addressed in Sections 6.4 of the TAMP, which notes that Traffic Management Plans will be developed to illustrate proposed traffic staging. During the reporting period TMPs were approved by RMS for:</p> <ul style="list-style-type: none"> <li>• Homebush Bay Drive Traffic Staging – Stage 2.</li> </ul> <p>Concrete barriers have been installed to separate the construction works from live traffic and provide a safe working area. Where construction works are required and barriers cannot be installed lane closures have been implemented.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p>
TT4	Analyse traffic volume data to identify capacity requirements, assess the potential impact of lane occupancies on traffic flows, plan lane occupancies to minimise the work area, and identify the best time to minimise inconvenience to road users. Restrictions and obstructions will be limited, road capacities maximised and peak traffic periods avoided where possible.	Construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.</p> <p>These measures are addressed in Sections 5, 6.3, 6.4 and 6.5 of the TAMP. Traffic modelling has been completed during the development of Traffic Management Plans during the reporting period.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&E on 15 April 2016.
TT5	Temporary closed-circuit television (CCTV) and variable message signs (VMS) will be provided to link with the existing Transport Management Centre (TMC) network to facilitate monitoring and management of impacts	Construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.</p> <p>These measures are addressed in Sections 6.5 and 7.2 of the TAMP. A Site Specific Ancillary Facilities Management Plan for a Traffic Control Room was approved by DP&amp;E on 22 July 2016.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p> <p>During the reporting period CCTVs were not yet installed, as the communication connection were being arranged with the utility provider. It is expected that these will be installed during the next reporting period.</p> <p>During the reporting period VMS which link to the TMC network were not yet installed, with the consistency review and Urban Design and Landscaping Plan for these items not yet approved. It is expected that these will be installed in early 2017. Temporary VMS were used in numerous locations during the reporting period to inform road users of changed traffic conditions.</p>
TT6	Throughout construction, consultation with the Transport Management Centre will be undertaken to ensure impacts to traffic flows are minimised.	Construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.</p> <p>These measures are addressed in Sections 3.1, 6.3 and 6.14 of the TAMP.</p> <p>Fortnightly Traffic Coordination Group (TCG) held between CSJ, WCXM4 Co and TMC commenced</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>in October 2015 and will continue for the duration of the construction of the project.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p>
TT7	<p>Road occupancy licences will be obtained for work that impacts traffic on existing roads in accordance with the requirements of council or Roads and Maritime.</p>	Construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.</p> <p>These measures are addressed in Sections 2.5.1 and 6.5.8 of the TAMP, and the TMSP.</p> <p>ROIs have been applied for and granted in accordance with the TAMP, TMSP and RMS systems for utility works, establishment, traffic staging and construction works including clearing, survey, pot holing, and geotechnical and contaminated land investigations. To date 253 ROIs have been approved by RMS, with 131 approved during this reporting period.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) approved by DP&amp;E on 15 April 2016.</p>
TT8	<p>A traffic management and safety plan (TMSP) will be prepared in addition to the construction environmental management plan (CEMP). The TMSP will include the guidelines, general requirements and principles of traffic management to be implemented during the proposed Ramsay Street closure</p> <p>In addition to development of a TMSP, the following mitigation strategies would be implemented to manage and control traffic</p>	Pre-Construction and construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.</p> <p>These measures are addressed in Sections 5.2, 5.4, 6.4 and 6.13 of the TAMP, and the Community Communication Strategy. CSJ have investigated a number of options for the closure of the Ramsay Street for the construction of the cut and cover structure, including full closure, night works, weekend works and realignment. Consultation has also been undertaken with RMS,</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<p>operation and access during the closure period:</p> <p>A traffic management and safety plan (TMSP) will be prepared in addition to the construction environmental management plan (CEMP). The TMSP will include the guidelines, general requirements and principles of traffic management to be implemented during the proposed Ramsay Street closure</p> <p>In addition to development of a TMSP, the following mitigation strategies would be implemented to manage and control traffic operation and access during the closure period:</p> <ul style="list-style-type: none"> <li>• The contractor will further review and develop the three proposed Ramsay Street closure options to establish an optimum construction strategy that would aim to have the minimum amount of disruption to affected residents</li> <li>• Manage and maintain adequate property access by providing reasonable and practical alternate traffic routes; which will be effectively communicated to the community. This would be undertaken in consultation with Roads and Maritime, local councils and property owners likely to be impacted.</li> </ul>				<p>TMC, the TCG and Traffic and Transport Liaison Group.</p> <p>In addition to the TAMP, a Traffic Management and Safety Plan (TMSP) has been prepared. The TMSP addresses this REMM. The TMSP is a sub-plan of the Project Management Plan and has been approved by RMS and TMC. The TAMP is a sub-plan of the CEMP and is informed by the TMSP.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p>
TT9	Pedestrian and cyclist access will be maintained where possible throughout construction. Where not feasible,	Prior to and during Construction	CSJ	Open	A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	alternate routes will be provided and communicated to the community.				<p>These measures are addressed in Sections 6.5, 6.9, 6.10, Annexure C and Annexure D of the TAMP.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p> <p>During the reporting period for this QCCR, the following pedestrian and cyclists were impacted by the project for more than one shift, with alternative routes provided in accordance with traffic management plants. :</p> <ul style="list-style-type: none"> <li>• M4 Motorway cycleway,</li> <li>• Reserve between Concord Road and Ada Street, and</li> <li>• Parramatta Road between Luke Avenue and Taylor Street.</li> </ul>
TT10	Changes in bus stops will be undertaken in consultation with Transport for NSW and bus operators, with the community informed of any potential changes in advance.	Construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.</p> <p>These measures are addressed in Sections 5.6 and 6.14 (Table 24) of the TAMP.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p> <p>CSJ has consulted with TfNSW and bus operators regarding temporary and permanent relocations of bus stops across the project. This has included meetings, review of design and site inspections. During the reporting period the following bus stops were relocated:</p> <ul style="list-style-type: none"> <li>• Parramatta Road (opposite Luke Avenue), and</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<ul style="list-style-type: none"> <li>Parramatta Road (near Wattle Street),</li> </ul>
TT11	Local road closures will be managed and adequate property access will be maintained. Where road closures are required, reasonable and practical alternate traffic routes will be provided and communicated to the community. This will be undertaken in consultation with Roads and Maritime, local councils and property owners likely to be affected.	Construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.</p> <p>These measures are addressed in Sections 5.4, 6.5.1, 6.5.2, 6.5.7 and 6.13 of the TAMP and the Community Communication Strategy.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p> <p>Where local roads are closed for short or long term periods notification is provided to the community.</p> <p>Access to all properties has been maintained during the reporting period for the QCCR.</p> <p>In the future traffic control plans and staging diagrams will provide details for any access arrangement during construction. Notification to property owners/occupiers will be undertaken prior to changed access arrangements in accordance with the DP&amp;E approved CCS.</p>
TT12	A Road Dilapidation Report will be prepared and will include identification of the existing conditions of local roads and mechanisms to repair any damage caused by the project.	Pre- and during Construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.</p> <p>These measures are addressed in Section 6.1 of the TAMP and the Community Communication Strategy.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p> <p>CSJ has completed road dilapidation assessments. The reports were provided to Strathfield, Canada Bay and Ashfield Council on</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					19 April 2016 and to the Secretary on 21 April 2016. This was prior to the commencement of haulage associated with major earthworks or tunnelling.
TT13	The TMSP will be developed in consultation with local emergency services and procedures will be implemented to maintain priority access and a safe environment will be maintained for emergency vehicles to travel through construction areas.	Construction	CSJ	Complete	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM. It was provided to NSW Police Service, NSW ambulance, NSW Fire Rescue and the State Emergency Service on 7 March 2016 for review and comment.</p> <p>These measures are addressed in Sections 1.2.3, 6.3.1, 6.14.2, and 6.14.4 of the TAMP and the Community Communication Strategy.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p>
TT14	Local emergency services will be frequently updated on the staging and progress of construction works.	Construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM.</p> <p>These measures are addressed in Section 6.14.2 of the TAMP and the Community Communication Strategy. Emergency services have been invited to attend the project Traffic and Transport Liaison Group. A meeting will be held with emergency services in August 2016 to discuss staging, construction progress and communication strategies.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p>
OpTT1	An operational traffic review will be undertaken 12 months after the opening of the project to confirm the operational impacts	12 months from the start of operation	WCXM4 Co	Not yet triggered	The operational traffic review is required to be undertaken 12 months after the commencement



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<p>of the project on surrounding arterial roads and major intersections. This review will be undertaken by a suitably qualified traffic consultant that is independent of the design and studies undertaken as part of the EIS.</p>				<p>of operation of the project. Reporting against this requirement will occur prior to operational phase.</p>
OpTT2	<p>A network and corridor optimisation approach will be adopted to manage delay and queuing impacts with optimisation works occurring at the following locations:</p> <ul style="list-style-type: none"> <li>• Parramatta Road/George Street intersection in Homebush/North Strathfield</li> <li>• Concord Road corridor between Patterson Street and Parramatta Road in Concord</li> <li>• Parramatta Road/Shafesbury Road intersection in Burwood/Concord (post M4-M5 Link opening)</li> <li>• Dobroyd Parade/Timbrell Drive intersection in Haberfield</li> <li>• Parramatta Road/Great North Road intersection in Croydon/Five Dock (post M4–M5 Link opening)</li> <li>• Parramatta Road/Wattle Street intersection in Ashfield/Haberfield (post M4–M5 Link opening)</li> <li>• Parramatta Road (east of Bland Street)</li> <li>• Parramatta Road/Crystal Street/Balmain Road in Leichhardt/Petersham</li> <li>• Sydney Olympic Park access.</li> </ul> <p>Further detail of the proposed optimisation is outlined in section 10.2.3 of the Traffic and</p>	Operation	WCXM4 Co/RMS	Not yet triggered	<p>This REMM is applicable to the operational phase of the project Reporting against this requirement will occur in later QCCRs.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	Transport Assessment at Appendix G of the EIS.				
OpTT3	A review of existing SCATS infrastructure at key intersections in the study area, including detectors, will be undertaken and upgrades will be implemented where appropriate to improve any impacts resulting from the project.	Detailed Design and operation	WCXM4 Co/RMS	Not yet triggered	These reviews are carried out as part of the traffic modelling undertaken through the design process for the project. Documenting of the existing infrastructure will be included in the relevant design packages.
OpTT4	<p>The following network upgrades will be investigated in consultation with relevant local councils, Roads and Maritime and affected communities:</p> <ul style="list-style-type: none"> <li>• Conversion of Mortley Avenue to entry only (except buses) at the Timbrell Drive / Dobroyd Parade intersection, with an additional entry lane to facilitate amended lane utilisation on the Timbrell Drive approach. Layout amendments could be required on Mortley Avenue which will need to consider impacts on existing parking provision, the location of the bus stop and some existing mature trees</li> <li>• Extension of left turn bay from Dobroyd Parade to Timbrell Avenue providing additional capacity for traffic reassigned from Mortley Avenue via Waratah Avenue and Dobroyd Parade</li> <li>• Provision of additional short lane on the Timbrell Drive approach to Dobroyd Parade potentially facilitated by using the old footpath area which is currently being replaced by the</li> </ul>	Operation	WCXM4 Co	Not yet triggered	This requirement relates to the operational phase of the project. The investigation will be undertaken prior to operational phase and reported in quarterly reports prepared at this time.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<p>construction of a footbridge (subject to bridge assessment). The additional capacity will allow a greater share of green time for Dobroyd Parade movements</p> <ul style="list-style-type: none"> <li>• Provision of a new signalised left turn slip lane from Parramatta Road to Wattle Street to accommodate the high number of movements to the M4-M5 tunnel in the PM peak</li> <li>• Increase in parking restrictions on the southbound side of Great North Road to provide increased capacity.</li> </ul> <p>Further detail of the identified network upgrades is outlined in section 10.2.3 of the Traffic and Transport Assessment at Appendix G of the EIS.</p>				
OpTT5	<p>The following network upgrades will be investigated in consultation with relevant local councils, Roads and Maritime and affected communities, and implemented as and when required based on traffic growth and changing traffic patterns:</p> <ul style="list-style-type: none"> <li>• Enabling right turn movements from the kerbside lane from George Street southbound to Parramatta Road</li> <li>• Extension of parking restrictions on the southern (westbound) side of Ramsay Street between Wattle Street and Walker Avenue</li> <li>• Reassignment of the second right turn lane on the Wattle Street westbound approach to Parramatta Road post opening of the M4–M5</li> </ul>	Operation	WCXM4 Co/RMS	Not yet triggered	This requirement relates to the operational phase of the project. The investigation will be undertaken prior to operational phase and reported in quarterly reports prepared at this time.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<p>Link, to provide an additional right turn bay for traffic exiting the M4–M5 Link and leaving a single right turn lane from Wattle Street</p> <ul style="list-style-type: none"> <li>Creation of a double right turn on the Wattle Street westbound approach to Ramsay Street post opening of the M4–M5 Link. This could be achieved by reallocating the right hand through lane, leaving a single through/left lane.</li> </ul>				
OpTT6	Smart motorway management will be considered for implementation within the project tunnel and associated ramps and approaches.	Operation	WCXM4 Co	Not yet triggered	This requirement relates to the operational phase of the project. The investigation will be undertaken prior to operational phase and reported in QCCRs prepared at this time.
AQ1	Develop and implement a Construction Air Quality Management Plan which requires consultation with NSW EPA. Any measures that are required will differ depending on the activities occurring, and so will need to be tailored for each individual site.	Pre-Construction	CSJ	Open	A Construction Air Quality Management Plan (AQMP) (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.
AQ2	Carry out regular site inspections to monitor compliance with the Construction Air Quality Management Plan, record inspection results.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 5.1 of the approved AQMP.</p> <p>Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with the AQMP.</p>
AQ3	Develop and implement a community communication strategy (or equivalent plan)	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	that includes community engagement before work commences on site.				comply with CoA D57(e) and was approved by DPE on 23 March 2016. A Community Communication Strategy was prepared to comply with CoA C1, and was approved by DP&E on 18 April 2016. This REMM was addressed in Section 4 of the approved AQMP and Community Communication Strategy.
AQ4	Display the name and contact details of person(s) accountable for air quality and dust issues at the boundaries of each construction area. This may be the project hotline, environment manager/engineer or the site manager.	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4 of the approved AQMP and Community Communication Strategy. A Community Communication Strategy was prepared to comply with CoA C1 and was approved by DP&E on 18 April 2016. Signage has been erected on the boundary fencing of all construction sites with the project community hotline.
AQ5	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4, AQL2, of the approved AQMP. Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with the AQMP and this REMM.
AQ6	Ensure where reasonable and feasible appropriate control methods are implemented	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	to minimise dust emissions from the project site.				<p>comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4 and Annexure A of the approved AQMP.</p> <p>Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with the AQMP and this REMM.</p> <p>Control measures applied on the project site include, but are not limited to, hoses and hand sprays, use of water carts, compaction of stockpiles and fill sites, covering of stockpiles, installation of rumble grids, and use of street sweepers.</p>
AQ7	Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site, cover as soon as practicable.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL12, of the approved AQMP.</p> <p>Spoil, topsoil and other materials with a potential to produce dust have been removed from site as soon as possible at Homebush Bay Drive, Underwood Road civil and tunnel site, Concord civil and tunnel site, Cintra Park tunnel site, Northcote Street tunnel site, Wattle Street civil site and Parramatta Road civil site.</p> <p>Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with the AQMP and this REMM.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
AQ8	Impose and signpost a maximum-speed-limit of 20 km/h on surfaced and unsurfaced haul roads and in work areas.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL11 and AQL29, of the approved AQMP.</p> <p>Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with the AQMP and this REMM. Signs are installed at the Cintra Park tunnel site and Homebush Bay Drive civil site requesting personnel maintain a speed of 20 km/hr.hr. Designated heavy and light vehicle routes had not been established at the other sites during the reporting period.</p> <p>Toolboxing of this requirement occurred at the .Homebush Bay Drive civil site.</p>
AQ9	Where practicable, only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, (eg suitable local exhaust ventilation systems).	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL26, of the approved AQMP.</p> <p>Road and concrete saws used onsite have been fitted with water sprays to suppress dust.</p> <p>Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with the AQMP and this REMM.</p>
AQ10	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>This REMM was addressed in Section 4, AQL13, of the approved AQMP.</p> <p>Temporary water lines have been installed and used during the demolition of properties and earthworks. Water carts are also used to assist with dust suppression on haulage routes and during earthworks.</p>
AQ11	Where possible, use enclosed chutes and conveyors and covered skips.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQ27, of the approved AQMP.</p> <p>Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with the AQMP and this REMM.</p> <p>Where possible, skips that are used on the project for noxious weeds, putrescible waste, cardboard and other light materials are covered. During the reporting period no chutes or conveyors were used.</p>
AQ12	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL28, of the approved AQMP.</p> <p>During earthworks and demolition activities drop heights were minimised, with water sprays used on piling rigs at Homebush Bay Drive civil site and Underwood Road civil site. During the reporting period no conveyors were used.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with the AQMP and this REMM.
AQ13	Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using appropriate cleaning methods.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AGL14, of the approved AQMP.</p> <p>Equipment to clean up a dry spill is available at the Homebush Bay Drive civil site, Underwood Road civil and tunnel site, Northcote Street tunnel site, Wattle Street civil site and Parramatta Road civil site. During the reporting period no spills of dry materials occurred.</p>
AQ14	Avoid scabbling (roughening of concrete surfaces) if possible.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL15, of the approved AQMP.</p> <p>During the reporting period no scabbling occurred.</p>
AQ15	Stockpiles would be located outside overland flowpaths, and where left exposed and undisturbed for longer than 28 days, would be finished and contoured to minimise loss of material in flood or rainfall events. Materials which require stockpiling and are undisturbed for longer than 28 days would be stabilised by compaction, covering with anchored fabrics, or seeded with sterile grass where appropriate.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL17, of the approved AQMP.</p> <p>Stockpiles onsite were managed to reduce erosion risk, with the following measures implemented across the sites where stockpiles were left undisturbed:</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<ul style="list-style-type: none"> <li>• Covering with geofabric,</li> <li>• Contoured and / or compacted</li> <li>• Spray sealed, and</li> <li>• Covered with mulch.</li> </ul> <p>Weekly environmental inspections have been completed during the establishment and construction phase of the project, to monitor compliance with the AQMP and this REMM.</p>
AQ16	Where a stockpile, eg sand or fine aggregate, has the potential to generate dust, control measures would be implemented. These would include wetting the stockpile, covering the stockpile or contouring the stockpile.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL18, of the approved AQMP.</p> <p>Control measures implemented for stockpile management include:</p> <ul style="list-style-type: none"> <li>• Covering with geofabric,</li> <li>• Contoured and / or compacted</li> <li>• Spray sealed, and</li> <li>• Covered with mulch.</li> </ul>
AQ17	Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL30, of the approved AQMP.</p> <p>During the reporting period bulk cement was not stored onsite. Smaller quantities of cement were stored onsite on pallets in packaged bags wrapped in pallet wrap.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
AQ18	For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4, AQL31, of the approved AQMP. Smaller quantities of cement were stored onsite on pallets in packaged bags wrapped in pallet wrap
AQ19	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site.	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4, AQL32, of the approved AQMP. Street sweepers have been used on the project at compounds as required to remove material from roads.
AQ20	Avoid dry sweeping of large areas.	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4, AQL16, of the approved AQMP. Street sweepers with water supply have been used on the project at compounds as required to remove material from roads.
AQ21	Ensure vehicles carrying materials or spoil entering and leaving sites are covered to prevent escape of materials during transport.	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>This REMM was addressed in Section 4, AQL33, of the approved AQMP. The contract with the project’s spoil haulage contractors includes the requirement for haulage trucks to be fitted with automatic tarpaulin covering.</p> <p>Weekly environmental inspections have been completed during the establishment and construction phase of the project, to monitor compliance with the AQMP and this REMM.</p>
AQ22	Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 5.1 of the approved AQMP.</p> <p>On-site haulage routes were inspected during the reporting period with the following measures implemented to maintain the integrity of the road:</p> <ul style="list-style-type: none"> <li>• Water carts used to suppress dust,</li> <li>• Street sweepers used on hard stand and chip sealed sections of haulage roads and exit points to remove dust,</li> <li>• Drainage channels cut to move dirty water away from the road and prevent rutting,</li> <li>• Manual shovelling to remove clay chunks on the road.</li> <li>• Grading of the haulage route,</li> <li>• Sealing of the road where possible,</li> <li>• Installation of metal plates over soft spots, and</li> <li>• Protection of stormwater pits.</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					Weekly environmental inspections have been completed during the establishment and construction phase of the project, to monitor compliance with the AQMP and this REMM.
AQ23	Record all inspections of haul routes and any subsequent action in a site inspection checklist.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 5.1 of the approved AQMP.</p> <p>On-site haulage routes were inspected during the reporting period with the following measures implemented to maintain the integrity of the road:</p> <ul style="list-style-type: none"> <li>• Water carts used to suppress dust,</li> <li>• Street sweepers used on hard stand and chip sealed sections of haulage roads and exit points to remove dust,</li> <li>• Drainage channels cut to move dirty water away from the road and prevent rutting,</li> <li>• Manual shovelling to remove clay chunks on the road.</li> <li>• Grading of the haulage route,</li> <li>• Sealing of the road where possible,</li> <li>• Installation of metal plates over soft spots, and</li> <li>• Protection of stormwater pits.</li> </ul>
AQ24	Where reasonable and feasible, haul roads will be maintained with water carts and graders, and the condition of the roads will be monitored.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL34 of the approved AQMP.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>On-site haulage routes were inspected during the reporting period with the following measures implemented to maintain the integrity of the road:</p> <ul style="list-style-type: none"> <li>• Water carts used to suppress dust,</li> <li>• Street sweepers used on hard stand and chip sealed sections of haulage roads and exit points to remove dust,</li> <li>• Drainage channels cut to move dirty water away from the road and prevent rutting,</li> <li>• Manual shovelling to remove clay chunks on the road.</li> <li>• Grading of the haulage route,</li> <li>• Sealing of the road where possible,</li> <li>• Installation of metal plates over soft spots, and</li> <li>• Protection of stormwater pits.</li> </ul>
AQ25	Implement site exit controls (eg wheel washing system and rumble grids) to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL35, of the approved AQMP. Site exit controls are also shown on the site layouts included with the Ancillary Facilities Management Plan (M4E-ES-PLN-PWD-00235).</p> <p>Site exit controls, including grids, rumble pads and have been installed at the following sites:</p> <ul style="list-style-type: none"> <li>• Homebush Bay Drive civil site,</li> <li>• Pomeroy Street civil site,</li> <li>• Underwood Road civil and tunnel site,</li> <li>• Concord civil and tunnel site,</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<ul style="list-style-type: none"> <li>• Cintra Park tunnel site,</li> <li>• Northcote Street tunnel site</li> <li>• Wattle Street civil site, and</li> <li>• Parramatta Road civil site.</li> </ul>
AQ26	Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL36, of the approved AQMP. Site exit controls are also shown on the site layouts included with the Ancillary Facilities Management Plan (M4E-ES-PLN-PWD-00235).</p> <p>Areas of hard surfaced road have been provided between site exit controls and the exit at the following locations, where there is space:</p> <ul style="list-style-type: none"> <li>• Homebush Bay Drive civil site,</li> <li>• Underwood Road civil site,</li> <li>• Concord civil and tunnel site,</li> <li>• Cintra Park tunnel site,</li> <li>• Northcote Street tunnel site</li> <li>• Wattle Street civil site, and</li> <li>• Parramatta Road civil site.</li> </ul>
AQ27	Access gates to be located at least 10 metres from receptors where possible.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL36, of the approved AQMP. Site exit controls are also shown on the site layouts included with the</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>Ancillary Facilities Management Plan (M4E-ES-PLN-PWD-00235).</p> <p>Access gates have been located more than 10m from sensitive receptors at the at the following locations, where there is space:</p> <ul style="list-style-type: none"> <li>• Homebush Bay Drive civil site,</li> <li>• Concord civil and tunnel site,</li> <li>• Cintra Park tunnel site,</li> <li>• Northcote Street tunnel site</li> <li>• Wattle Street civil site, and</li> <li>• Parramatta Road civil site.</li> </ul>
AQ28	Ensure all construction vehicles comply with their relevant emission standards.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL38, of the approved AQMP. Construction light vehicles which are provided or hired by CSJ are serviced as per the manufacturer’s advice. All plant and equipment undergo pre-plant inspections to ensure optimal performance can be achieved.</p>
AQ29	Ensure that, where practicable engines idling is minimised when stationary.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL39, of the approved AQMP.</p> <p>During the reporting period the project induction included the mitigation measure to minimise idling</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					times. A toolbox talk was also completed on this topic at the Homebush Bay Drive civil site
AQ30	Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4, AQL40, of the approved AQMP. The project offices utilise mains power, except for the temporary site office at Concord and to power 44 Martin Street, Haberfield.
AQ31	Promote and encourage sustainable travel (public transport, cycling, walking, and car-sharing).	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4, AQL41, of the approved AQMP and Section 6.8 TAMP. During the project on-boarding process this REMM is discuss with all employees, and is reinforced during the project induction
AQ32	No bonfires and burning of waste materials	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4, AQL42, of the approved AQMP. During the reporting period for this QCCR no wastes were burnt.
AQ33	Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					This REMM was addressed in Section 4, AQL33, of the approved AQMP. Houses demolished during the reporting period for this QCCR have included soft stripping of hazardous materials.
AQ34	Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground and may be more useful for covering larger areas.	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4, AQL23, of the approved AQMP. Temporary water lines werewere installed at the Northcote Street tunnel site, Wattle Street civil site and Parramatta Road civil site and were used during the demolition of properties at these locations.
AQ35	No explosive blasting during demolition. Appropriate manual or mechanical alternatives will be used.	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4, AQL24, of the approved AQMP. Explosive blasting has not been used to demolish buildings during the establishment and construction phase of the project.
AQ36	Bag and remove any biological debris or other hazardous materials such as asbestos, damp down such material before demolition.	Construction	CSJ	Open	A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016. This REMM was addressed in Section 4, AQL25, of the approved AQMP, with additional safety requirements including in the project Demolition Management Plan and area specific Work Packs.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					Prior to the demolition of each property a Hazardous Materials Survey was completed to confirm the presence of asbestos, lead dust, lead paint, insulation and other hazardous materials. Where hazardous materials were present, including asbestos, lead dust and insulation, they were bagged and removed prior to demolition of the property.
AQ37	Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL19, of the approved AQMP.</p> <p>Exposed areas were grassed at the Cintra Park tunnel site and Underwood Road civil and tunnel site, with natural re-growth also encouraged in swale drain adjacent to the M4 motorway at Homebush Bay Drive civil site.</p>
AQ38	Use hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL20, of the approved AQMP.</p> <p>During the reporting period mulch was used at the following locations to minimise erosion: Homebush Bay Drive civil site, Pomeroy Street civil site, Underwood Road civil and tunnel site, Concord Road civil and tunnel site, Cintra Park Tunnel site, Wattle Street civil site and Parramatta Road civil site. Soil binders have also been used at Homebush Bay Drive civil site and Underwood Road civil and tunnel site to minimise erosion.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					Weekly environmental inspections have been completed during the establishment and construction phase of the project, to monitor compliance with the AQMP and this REMM.
AQ39	Where possible, only remove any cover for exposed areas in small areas during work and not all at once.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL21, of the approved AQMP.</p> <p>Clearing on site has been staged to maintain ground cover for as long as possible. Vegetation has been retained:</p> <ul style="list-style-type: none"> <li>• At the Pomeroy Street civil site,</li> <li>• Along the northern batter of the M4 Motorway at Underwood Road civil and tunnel site,</li> <li>• At Sydney Street,</li> <li>• Along the eastern boundary of Cintra Park tunnel site, and</li> <li>• Within Reg Coady Reserve.</li> </ul>
AQ40	Regular communication with other high risk construction ancillary facilities within 500 metres of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network routes.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL1, of the approved AQMP.</p> <p>The project has consulted with the M4 Widening project, coordinating construction works to minimise traffic impacts.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
AQ41	Undertake regular on-site and off-site inspection, where receptors are nearby, to monitor dust, record inspection results.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 5.1 of the approved AQMP.</p> <p>Weekly environmental inspections have been completed during the establishment and construction phase of the project, to monitor compliance with the AQMP and this REMM.</p>
AQ42	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL10, of the approved AQMP and Community Communication Strategy and the Construction Complaints Management System (Community Communication Strategy).</p> <p>To date, eighteen complaints relating to dust or air quality have been received by the project, via the Community Relations Team from the toll-free project number.</p> <p>In all circumstances, site management was contacted and dust management measures were reviewed.</p>
AQ43	Make complaints available to the Secretary upon request.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL10, of the approved AQMP and Community Communication Strategy and the Construction</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>Complaints Management System (Community Communication Strategy).</p> <p>To date, eighteen complaints relating to dust or air quality have been received by the project, via the Community Relations Team from the toll-free project number.</p> <p>In all circumstances, site management was contacted and dust management measures were reviewed.</p> <p>A weekly summary of the project environmental complaints if provided to the Department of Planning and Environment as requested.</p>
AQ44	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation.	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p> <p>This REMM was addressed in Section 4, AQL7, of the approved AQMP.</p> <p>To date, no exceptional incidents causing dust or air emissions have occurred on the project, however high winds were noted on three days during the reporting period for this QCCR. On these days the proposed works were reviewed, with dust generating activities including demolition, spoil removal and excavation ceasing. Additional mitigation was also implemented including, used water carts on haul roads and reduced heavy vehicle speeds on haul roads.</p>
AQ45	Ambient air quality will be monitored continuously for at least twelve months prior to project opening, during construction and for at least two years after project opening. Monitoring results will be made publicly	Construction	CSJ	Open	<p>A Construction Air Quality Management Plan (M4E-ES-PLN-PWD-00234) was prepared to comply with CoA D57(e) and was approved by DPE on 23 March 2016.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	available and will be subject to an independent audit.				This REMM was addressed in Section 5.1 of the approved AQMP. During construction air quality has been monitored through visual observation, with dust deposition gauges currently being installed across the project.
OpAQ1	Sampling points with safe access will be installed at the ventilation outlets during construction. The sampling points will be designed and located in accordance with the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA 2007, or as updated), or an equivalent methodology approved by the Secretary in consultation with the EPA.	Operation	CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken between February and September 2016, and will include design of air quality monitoring stations when finalised.  This CoA applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report as provided in in Section 2.3 of this of this QCCR.  Installation of the plant will be undertaken toward the end of the construction phase for the ventilation outlets.
OpAQ2	Ventilation will be automatically controlled using real-time traffic data and feedback from air quality sensors in the tunnel, to ensure in-tunnel conditions are managed effectively in accordance with the agreed criteria.	Operation	CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken between February and September 2016. The requirements of this system will be met through the operational software system.  This CoA applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report as provided in in Section 2.3 of this of this QCCR.
OpAQ3	Specific ventilation modes and procedures will be developed to manage breakdown, congested and emergency situations.	Pre-Operation	CSJ	Not yet triggered	Detailed design of the ventilation system is being undertaken between February and September 2016. A draft Ventilation Report has been completed (due for FD in August 2016) and will address this REMM.  As the design continues to develop, compliance will be reported on in the QCCR and Pre-Operational Compliance Report as provided in in Section 2.3 of this of this QCCR.





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					This also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report as provided in in Section 2.3 of this of this QCCR.
HH1	Provision of access for affected households to a counselling service, WestConnex Assist, to support them in negotiating the land acquisition process and relocation.	Pre-Construction	WCXM4 Co	Open	Land acquisition for the M4 East project has been undertaken in accordance with the Roads and Maritime Services <i>Land acquisition information guide</i> (Roads and Maritime 2014) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> (NSW). The WestConnex Assist counselling service ('Converge') is the counselling service provided by WCXM4 Co. It is a free, independent and confidential counselling service and is still available for use for relocated persons.
NV1	<p>A Construction Noise and Vibration Management Plan will be prepared and implemented consistent with the requirements of the Interim Construction Noise Guideline (DECC 2009), and will include the following:</p> <ul style="list-style-type: none"> <li>• Identification of nearby residences and other sensitive land uses</li> <li>• Description of approved hours of work</li> <li>• Description and identification of all construction activities, including work areas, equipment and duration</li> <li>• Description of what work practices (generic and specific) will be applied to minimise noise and vibration</li> <li>• A complaints handling process</li> </ul>	Pre-Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Sections 2.2, 5.1 and 7, Annexure A and Annexure B, and also in Sections 7.4, 8 and 8.2 of the Community Communication Strategy.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<ul style="list-style-type: none"> <li>Noise and vibration monitoring procedures</li> <li>Overview of community consultation required for identified high impact works.</li> </ul>				
NV2	Induction and training will be provided to relevant staff and subcontractors outlining their responsibilities with regard to noise.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>The Project Induction is a mandatory requirement of all staff, workforce and sub-contractors working on the project, with approximately 1356 personnel inducted during the reporting period. The Induction includes a section that discusses obligations of all personnel relating to the management of noise during construction.</p> <p>This REMM is addressed in the approved NVMP at Section 1.4.</p>
NV3	Surface work will be undertaken during standard construction hours as far as feasible and reasonable.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 5.1 and 7.1, NVM12.</p> <p>Surface works completed outside of standard hours have been approved as per the Out of Hours Works Protocol, and were completed out of hours to ensure minimal impact to road network performance, deliveries, minimise safety risks to the public and construction personnel and for essential utility works.</p>
NV4	Where feasible and reasonable, particularly noisy activities such as the use of impact	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	piling rigs, road and concrete saws and rockbreakers, will be scheduled around times of high background noise to provide masking.				been prepared to comply with CoA D57(b) and was approved by DP&E on 22 March 2016. This REMM is addressed in the approved NVMP at Sections 5.1 and 7.1, NVM13. Noisy activities have been completed during standard construction hours where possible. Out of hours works have been approved in accordance with the Out of Hours Works Protocol, with higher noise activities such as road and concrete sawing and rock hammering completed before midnight.
NV5	Noisy activities that cannot be undertaken during standard construction hours will be scheduled as early as possible during the evening and/or night-time periods.	Construction	CSJ	Open	A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&E on 22 March 2016. This REMM is addressed in the approved NVMP at Sections 5.1 and 7.1, NVM14. Noisy activities, including the use of road saws and hammers, have been scheduled as early as possible, and were approved in accordance with the Out of Hours Works Protocol. The Out of Hours Permits require road saws and hammers to cease prior to midnight.
NV6	Particularly noisy activities will be scheduled during the less sensitive times of 9.00 am to 12.00 pm or 2.00 pm to 5.00 pm where appropriate, or in accordance with the environment protection licence.	Construction	CSJ	Open	A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&E on 22 March 2016. This REMM is addressed in the approved NVMP at Section 7.1, NVM12 and NVM13. Noisy activities have been scheduled in accordance with the EPL, condition L4.2 which allows high noise impacts works to be undertaken between 8:00am



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					and 6:00pm Monday to Friday, 8:00am and 1:00pm Saturday and with respite periods.
NV7	Permanent noise barriers will be scheduled for completion as early as possible in order to minimise construction noise.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM25.</p> <p>The project is completing the detailed design for road geometry and structures. Once this design is at a final stage it will be used to model noise levels, therefore allowing for noise barrier heights and locations to be finalised. Progress on the noise design will be reported on in future QCCRs as provided in Section 2.3 of this QCCR.</p>
NV8	Property treatments identified for the operational phase of the project will be considered for installation as early as possible where they would improve construction noise levels.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM25.</p> <p>The project is completing the detailed design for road geometry and structures. Once this design is at a final stage it will be used to model noise levels, therefore allowing for property treatment design to be finalised. Progress on the noise design will be reported on in future QCCRs as provided in Section 2.3 of this QCCR.</p>
NV9	Acoustic sheds to be erected at the Underwood Road tunnel site (C3), Concord Road tunnel site (C5), Cintra Park tunnel site (C6) and Northcote Street tunnel site (C7) will	Pre-Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<p>be reviewed during construction planning to determine the attenuation level required.</p>				<p>This REMM is addressed in the approved NVMP at Section 7.1 NVM24</p> <p>Site specific CNVIS' have been prepared for all the tunnelling sites. The CNVIS' have assessed the proposed activities at each site and include modelling for acoustic sheds, covers and noise barriers for each site, with the specification for each means of mitigation tailored to the particular needs of that site. Noise mitigation recommended in the CNVIS' have been included in the ancillary site layout diagrams, as approved in the AFMP by DPE on 26 February 2016, and any subsequent revisions.</p> <p>Construction of acoustic sheds has commenced at Underwood Road tunnel site (C3), Concord Road tunnel site (C5), Cintra Park tunnel site (C6) and Northcote Street tunnel site (C7).</p>
NV10	<p>Temporary acoustic barriers (walls or hoarding) will be considered at all construction ancillary facility and work areas where feasible and reasonable. Recommended heights and locations of these barriers are provided in Table 42 of the Noise and Vibration Assessment at Appendix J of the EIS.</p>	Pre-Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM24, NVM25 and NVM26.</p> <p>Site specific CNVIS' have been prepared for all the construction sites. The CNVIS' have assessed the proposed activities at each site and include modelling for noise barriers for each site, with the specification for each means of mitigation tailored to the particular needs of that site. Noise barriers recommended in the CNVIS' have been included in the ancillary site layout diagrams, as approved in the AFMP by DPE on 26 February 2016, and any subsequent revisions.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					Construction of temporary acoustic barriers has commenced at all construction sites where required.
NV11	Night works, other than tunnelling, will be programmed to minimise the number of consecutive nights that work affects the same receivers.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM17.</p> <p>Works completed outside of standard hours has been approved in accordance with the project Out of Hours Works Protocol. Works which would impact upon residents have been programmed to only occur over two or three consecutive nights, depending on predicted noise levels.</p>
NV12	When working adjacent to schools, particularly noisy activities will be scheduled outside normal school hours, where practicable.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM11.</p> <p>During the reporting period particularly noisy activities have not occurred within the vicinity of schools.</p>
NV13	Works will be scheduled to avoid the coincidence of noisy plant working simultaneously close together and adjacent to sensitive receivers.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM19.</p> <p>Through the out of hours works process one of the mitigation measures identified and</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					implemented has been to ensure noisy plant does not work simultaneously.
NV14	Equipment that is used intermittently will be shut down when not in use.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM19 and has been included in Site Specific Project Inductions.</p> <p>Weekly environmental inspections have been completed during the establishment and construction phase of the project, to monitor compliance with the NVMP and this REMM.</p>
NV15	Where feasible and reasonable, heavy vehicle movements which are utilised for surface works will be limited to daytime hours.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM5, NVM15.</p> <p>Heavy vehicles utilised for surface works have generally been limited to daytime hours. Use of heavy vehicles during evening and night hours has been approved in accordance with the Out of Hours Works Protocol.</p>
NV16	Where feasible and reasonable, the offset distance between noisy plant items and nearby noise sensitive receivers will be as large as possible.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM19.</p> <p>The compound layouts approved within the AFMP were designed to locate noisy fixed plant as far away from sensitive receivers as feasible. Where</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					this is not feasible temporary noise barriers at site boundaries and acoustic shielding for specific pieces of plant is provided.
NV17	Where feasible and reasonable, equipment with directional noise emissions will be oriented away from sensitive receivers.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM19.</p> <p>At the Northcote Street tunnel site during piling works the rig was directed towards Parramatta Road, reducing impacts on nearby residential properties to the north of the site. The ventilation fans for the tunnel at Cintra Park tunnel site were also orientated, to not point directly at nearby receivers.</p> <p>Weekly environmental inspections have been completed during the establishment and construction phase of the project, to monitor compliance with the NVMP and this REMM.</p>
NV18	Regular compliance checks on the noise emissions of plant and machinery will be conducted.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM30.</p> <p>At the Cintra Park tunnel site compliance checks of noise emissions were performed on a generator and during canopy tube installation. During out of hours works at Wattle Street civil site, noise monitoring identified an opportunity to utilise smaller vacuum trucks which produce lower noise levels.</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
NV19	Ongoing noise monitoring will be undertaken during construction at sensitive receivers during critical periods to identify and assist in managing high risk noise events.	Construction	CSJ	Open	A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&E on 22 March 2016. This REMM is addressed in the approved NVMP at Section 7.1 NVM29, Section 8, Annexure F. Noise monitoring has been completed during works completed out of hours, to confirm actual noise levels are consistent with the predicted noise levels. On two occasions the noise levels monitored were greater than those predicted in the noise model. In the first instance at the Cintra Park tunnel site subsequent monitoring confirmed that higher than expected background levels had led to higher actual noise levels. In the second instance at Wattle Street civil site the construction crew were toolbox talked on the requirements of the permit, and the construction team met to discuss the event and review the equipment used
NV20	Reversing of equipment will be minimised to prevent nuisance caused by reversing alarms. Use of non-tonal reversing alarms ('quackers') will be implemented to further reduce the nuisance caused by reversing alarms.	Construction	CSJ	Open	A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&E on 22 March 2016. This REMM is addressed in the approved NVMP at Section 7.1 NVM8 and NVM20. Compound layouts included in the AFMP have been designed to minimise reversing of vehicles. The contract with project spoil haulage contractors includes the requirement that all haulage trucks are fitted with non-tonal alarms (i.e. quackers).
NV21	Loading and unloading will be carried out away from sensitive receivers, where practicable.	Construction	CSJ	Open	A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM19.</p> <p>Compound layouts approved in the AFMP include sheds which will be utilised by the tunnelling teams when loading spoil to minimise impacts on sensitive receivers.</p>
NV22	Delivery of materials will be carried out during standard construction hours where feasible and reasonable, or as required by NSW Police or other authorities for safety reasons.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM15 and Section 5.5.</p> <p>During the reporting period, where deliveries occurred out of hours this was completed in accordance with the requirements of the EPL and project Out of Hours Works Protocol.</p>
NV23	Alternative works methods, such as use of hydraulic or electric controlled units in place of diesel units, will be considered and implemented where feasible and reasonable.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM6. During clearing works completed out of hours, electric and hydraulic chainsaws are preferentially used over petrol chainsaws to reduce noise levels.</p> <p>Weekly environmental inspections have been completed during the establishment and construction phase of the project, to monitor compliance with the NVMP and this REMM.</p>
NV24	Respite periods (eg one hour respite for every three hours of continuous construction)	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	activity) will be scheduled for high noise impact works where appropriate.				<p>been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 5.2.1 and Section 7.1 NVM13.</p> <p>This REMM is addressed in Site Specific Project Inductions which personnel are required to attend before commencing work at the various sites.</p> <p>During the reporting period respite periods were provided as required by this REMM, including during works at Northcote Street tunnel site and utilities works.</p>
NV25	Truck drivers will be advised of designated vehicle routes, parking and queuing locations, acceptable delivery hours and other relevant practices (ie minimising the use of engine brakes, and no extended periods of engine idling).	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM5 and NVM16.</p> <p>CSJ's contracts with the project spoil haulage contractors include the requirement that Spoil contractors must comply with the project Spoil Management Plan which includes designated haulage routes and other relevant practices.</p>
NV26	Should the second storey of buildings at construction ancillary facilities be proposed to be used for any purpose other than site offices and amenities, and particularly where plant and equipment would be used, additional noise assessment will be undertaken.	Construction	CSJ	Not yet triggered	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 6.1.</p> <p>The AFMP currently proposes double-stacking of buildings for only offices and amenities, therefore noise assessment is not required.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
NV27	Deliveries and spoil removal will be planned to avoid queuing of trucks around construction ancillary facilities.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM23.</p> <p>Compound layouts approved in the AFMP have been designed to provide space for onsite queuing of trucks where space permits. With onsite queuing of trucks occurring at the Homebush Bay Drive civil site. During the reporting trucks were identified by the construction team to be queuing on public roads at the Northcote Street tunnel site and Wattle Street civil site. In both instances the construction team further staggered the arrival of trucks at the commencement of the shift to prevent this from occurring again.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
NV28	As far as practicable, construction vehicle movements along local roads at night will be restricted to light vehicles only, subject to further investigation of potential night-time maximum noise levels during detailed design.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1 NVM16 and the site specific CNVIS.</p> <p>Use of construction vehicles during evening and night hours has been approved in accordance with the Out of Hours Works Protocol.</p> <p>The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016 and included the use of some local roads by project heavy vehicles. This was also approved by the Secretary in accordance with Condition of Approval D42.</p>
NV29	As far as practicable, heavy vehicle movements outside standard construction hours associated with tunnel support works (spoil removal, concrete delivery and other heavy vehicle movements) will be limited to access and egress directly to and from the arterial road network.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM16 and the site specific CNVISs.</p> <p>The project AFMP and TAMP include approved access and egress for the tunnelling sites which utilise state and regional roads.</p>
NV30	Spoil removal will be minimised between 10.00 pm and 7.00 am.	Construction	CSJ	Not yet triggered	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence															
					<p>This REMM is addressed in the approved NVMP at Section 7.1, NVM12 and NVM14 and site specific CNVISs.</p> <p>Haulage of tunnel spoil has not yet occurred out of hours.</p>															
NV31	<p>Building condition surveys will be undertaken on properties and structures located:</p> <ul style="list-style-type: none"> <li>• Within the preferred project corridor (the zone on the surface equal to 50 metres from the outer edge of the tunnels)</li> <li>• Where the potential for exceedances of the blasting criteria is identified</li> <li>• Within 50 metres of surface works.</li> </ul> <p>Building condition surveys of potentially affected structures will be completed both before the start of tunnelling or other vibration intensive works and after completion of works, to identify existing damage and any damage due to the works.</p>	Prior to tunnelling or other vibration intensive works	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM1.</p> <p>A summary of surveys undertaken to date are in the table below.</p> <table border="1"> <thead> <tr> <th></th> <th>Contacted</th> <th>Responded</th> <th>PCS survey completed</th> <th>PCS report sent</th> </tr> </thead> <tbody> <tr> <td>Residential</td> <td>2614</td> <td>1328</td> <td>1269</td> <td>1206</td> </tr> <tr> <td>Commercial</td> <td>188</td> <td>76</td> <td>68</td> <td>68</td> </tr> </tbody> </table>		Contacted	Responded	PCS survey completed	PCS report sent	Residential	2614	1328	1269	1206	Commercial	188	76	68	68
	Contacted	Responded	PCS survey completed	PCS report sent																
Residential	2614	1328	1269	1206																
Commercial	188	76	68	68																
NV32	<p>The safe working distances will be complied with where feasible and reasonable. This will include the consideration of smaller equipment when working close to existing structures.</p>	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM31 and Section 7.2.</p> <p>During the reporting period safe working distances were complied with at the Wattle Street civil site whilst using a ripper and at the Northcote Street tunnel site when hammering the ramp.</p> <p>Weekly environmental inspections have been completed during the establishment and</p>															



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					construction phase of the project, to monitor compliance with the NVMP and this REMM.
NV33	If vibration intensive works are required within the safe working distances, vibration monitoring or attended vibration trials will be undertaken at the outset of these works to ensure that levels are within relevant criteria.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM31 and Section 7.3.</p> <p>Vibration monitoring has been completed when conducting vibration intensive works near heritage items, including utility works near the Cheil Church on Concord Rd, St Lukes Church on Burton Street, and 1 Ada Street. There was one exceedance of the vibration criteria when working near 1 Ada Street, associated with a 5T excavator changing its attachment near the vibration monitor sensor. This exceedance was raised with the project vibration consultant who confirmed that the level would not have impacted the structural integrity of the property and that the construction method did not need to be reviewed. Monitoring has also been conducted to validate predicted vibration levels.</p>
NV34	Investigate the feasibility of rescheduling the hours of operation of major vibration generating plant and equipment to less sensitive times such as 9.00 am to 12.00 pm or 2.00 pm to 5.00 pm, where appropriate, or in accordance with the environment protection licence	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM12 and NVM13.</p> <p>Vibration generating activities completed on the project were scheduled to provide respite in accordance with the EPL, condition L4.2.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
NV35	Investigations will be undertaken into all heritage items located within the safe working boundary to determine if these structures are structurally unsound, to assist with determining the applicable criteria for each item.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM1, Annexure A and site specific CNVISs.</p> <p>Vibration monitoring has been conducted at heritage items during vibration intensive works, including utility works near the Cheil Church on Concord Rd, St Lukes Church on Burton Street, and 1 Ada Street. There was one exceedance of the vibration criteria when working near 1 Ada Street, associated with a 5T excavator changing its attachment near the vibration monitor sensor. This exceedance was raised with the project vibration consultant who confirmed that the level would not have impacted the structural integrity of the property and that the construction method did not need to be reviewed.</p>
NV36	Vibration intensive construction works will be confined to the less sensitive daytime period (9.00 am to 12.00 pm or 2.00 pm to 5.00 pm) as far as reasonably practicable, or in accordance with the environment protection licence.	Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM12 and NVM13.</p> <p>Vibration generating activities completed on the project were scheduled to provide respite in accordance with the EPL, condition L4.2.</p>
NV37	A detailed ground-borne vibration assessment will be undertaken following further geotechnical investigations. This will	Pre-Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	include developing the vibration site law for the project.				This REMM is addressed in the approved NVMP at Section 3.3, Section 7.1, NVM31 and the tunnelling CNVIS which was completed in May 2016.
NV38	Noise and vibration mitigation methods specific to blasting will be incorporated into the CNVMP where required.	Pre-Construction and construction	CSJ	Open	A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&E on 22 March 2016. This REMM is addressed in the approved NVMP at Section 5.6 and Section 7.1. No blasting has occurred on the project to date. A Blast Management Strategy (BMS) has been drafted and CSJ is examining blasting options to finalise the document.
NV39	Blasting will be restricted to standard daytime hours (except where approved by the relevant authority).	Construction	CSJ	Not yet triggered	The Blast Management Strategy (BMS) has been drafted that assists in complying with this requirement, to comply with this condition, and CSJ is examining blasting options to finalise the document. Prior to any blasting occurring the BMS will need to be approved by the Secretary and the NSW EPA as part of an EPL variation to permit blasting on the project. A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&E on 22 March 2016. This REMM is addressed in the approved NVMP at Section 5.6 and in the BMS.
NV40	Site investigations will be conducted prior to production blasting to define suitable blast sizes to comply with project blasting noise and vibration criteria.	Construction	CSJ	Not yet triggered	The Blast Management Strategy (BMS) has been drafted that assists in complying with this requirement. CSJ is examining blasting options to finalise the document.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>Prior to any blasting occurring the BMS will need to be approved by the Secretary and the NSW EPA as part of an EPL variation to permit blasting on the project.</p> <p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 5.6 and in the BMS.</p>
NV41	Where the predicted levels exceed the noise or vibration criteria for blasting, alternative construction methods, such as penetrating cone fracture, will be utilised.	Pre-Construction	CSJ	Not yet triggered	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 3.4, Section 7.1 NVM6.</p> <p>No blasting has occurred on the project to date. Noise and vibration levels from blasting are currently being modelled, with alternative construction methods developed as required. Progress with this REMM will be report on in the QCCRs as outlined in Section 2.3 of this QCCR.</p>
NV42	Once plant items within the ventilation building are confirmed during detailed design, impacts will be assessed with consideration of the <i>Industrial Noise Policy</i> (INP) modifying factors. Where modifying factors are found to be applicable they will be added to the assessment, and compliance with the INP criteria checked at all receivers.	Design	CSJ	Open	<p>This REMM applies to the detailed design of the Project which is being undertaken between March and December 2016. Compliance against this condition will be assessed in the Operational Noise and Vibration Review, which will be lodged with the Secretary within six months of commencing construction (22 October 2016).</p> <p>It also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report as provided in in Section 2.3 of this of this QCCR.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
NV43	Community consultation protocols for sensitive receivers likely to be impacted by construction activities such as blasting, vibration and noise will be prepared and implemented.	Pre-Construction and construction	CSJ	Open	A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&E on 22 March 2016. This REMM is addressed in the approved NVMP at Section 7.1, NVM2, Section 7.3, and in the CCS. Consultation protocols for sensitive receivers impacted by noise have been implemented for out of hours works completed by the project.
OpNV1	At locations where residual impacts remain after all feasible and reasonable approaches have been exhausted, noise mitigation in the form of acoustic treatment of existing individual dwellings will be considered.	Operation	CSJ	Not yet triggered	This REMM applies to the detailed design of the Project which is being undertaken between March and December 2016. Compliance against this condition will be assessed in the Operational Noise and Vibration Review (required under CoA E33), which will be lodged with the Secretary within six months of commencing construction (22 October 2016). It also applies to the operational phase of the Project and will be reported on in the Pre-Operational Compliance Report as provided in in Section 2.3 of this of this QCCR.
OpNV2	Noise barriers will be refined during detailed design to maximise the number of receivers that receive a reduction in exceedances of noise criteria.	Operation	CSJ	Open	This REMM relates to the detailed design phase of the project which is being undertaken between March and December 2016. Compliance against this condition will be assessed in the Operational Noise and Vibration Review (required under CoA E33), which will be lodged with the Secretary within six months of commencing construction (22 October 2016). It also applies to the operational phase of the Project and will be reported on in the Pre-



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					Operational Compliance Report as provided in in Section 2.3 of this of this QCCR.
OpNV3	Within 12 months of commencement of operation, operational traffic noise will be monitored at sensitive receivers-to compare actual noise performance of the project against predicted noise performance. If the traffic noise levels are above the predicted levels, consideration of additional feasible and reasonable mitigation measures will be undertaken.	Operation	WCXM4 Co/CSJ	Not yet triggered	This REMM relates to 12 months following commencement of the operational phase of the project and will be reported on in the Pre-Operation Compliance Report.
OpNV4	Operational ancillary facilities will be designed to meet project specific noise criteria derived in accordance with the NSW Industrial Noise Policy.	Pre-construction	CSJ	Open	This REMM applies to the detailed design of the Project which is being undertaken between March and December 2016. Compliance against this condition will be assessed in the Operational Noise and Vibration Review, which will be lodged with the Secretary within six months of commencing construction (22 October 2016).
PL1	Land acquisition for the project will be undertaken in accordance with the Roads and Maritime Services <i>land acquisition information guide</i> (Roads and Maritime 2014) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> (NSW).	Pre-Construction	WCXM4 Co	Open	Land acquisition for the M4 East project has been undertaken in accordance with the Roads and Maritime Services <i>land acquisition information guide</i> (Roads and Maritime 2014) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> (NSW).
PL2	Consultation will occur with the relevant property owners in relation to temporary land leases and acquisition of properties required for construction. Where acquisition is identified as the preferred option, this will be undertaken in accordance with the Roads and Maritime Services <i>land acquisition information guide</i> (Roads and Maritime 2014) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> (NSW).	Pre-Construction	WCXM4 Co / CSJ	Open	Consultation activities associated with the acquisition of properties has been carried out in accordance with the Roads and Maritime Services <i>Land acquisition information guide</i> (Roads and Maritime 2014) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> (NSW) and has included: <ul style="list-style-type: none"> <li>• Door knocks to inform of acquisition – 4 June 2015;</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<ul style="list-style-type: none"> <li>Follow up meetings with WCXM4 Co representatives and RMS;</li> <li>Responding to phone calls and emails as required;</li> <li>Meetings with RMS Property and valuers;</li> <li>Offer of support services for property owners with exceptional circumstances.</li> </ul> <p>The services available to support residents who are being relocated as a result of property acquisition include:</p> <p>(a) The WestConnex Assist counselling service - 'Converge' – which is the counselling service provided by WCXM4 Co. It is a free, independent and confidential counselling service and is still available for use for relocated persons</p> <p>(b) Community relations support to respond to community issues, concerns and requests and to offer a translation service to households for whom English is a second language.</p>
PL3	Property accesses that are affected as a result of the project will be reinstated in consultation with the affected landowners.	Post-Construction	CSJ	Open	<p>All property access points affected by the construction of the project will be reinstated at the cessation of construction works in consultation with land owners. To date, no property access has been affected by the project</p> <p>Consultation will be undertaken in accordance with the Community Consultation Strategy required by CoA C1.</p>
PL4	Affected property owners will be consulted where temporary property access will be required.	Pre-construction and construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM. The Project Construction Traffic and Access Management</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>Plan (M4E-ES-PLN-PWD-00243) was lodged with DP&amp;E for approval on 21 March 2016.</p> <p>These measures are addressed in Sections 6.6 of the TAMP and the Community Communication Strategy.</p> <p>CSJ have identified that the access of five properties on Carrington Lane will be temporarily affected during construction works. Consultation has been undertaken with the property owners through door knocks and phone calls.</p>
PL5	Affected property owners will be provided with advanced notification of relevant project schedules, construction works and changes to access arrangements.	Pre-construction and construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM. The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p> <p>Community consultation has been undertaken in accordance with the Community Communication Strategy (CCS) which has been prepared to comply with CoA C1, and was approved by DP&amp;E on 18 April 2016. During the reporting period over 50 notifications were provided to the community via letter box drop.</p> <p>These measures are addressed in Sections 6.6 of the TAMP and the CCS.</p>
PL6	Community updates will be provided on changes to the local road network within the project area during construction.	Construction	CSJ	Open	<p>A Traffic and Access Management Plan has been prepared to meet CoA D57(a) that fulfils the requirements of this REMM. The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) was approved by DP&amp;E on 15 April 2016.</p> <p>Community consultation has been undertaken in accordance with the Community Communication Strategy (CCS) which has been prepared to</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>comply with CoA C1, and was approved by DP&amp;E on 18 April 2016.</p> <p>These measures are addressed in Sections 6.14 of the TAMP and the Community Communication Strategy.</p> <p>Examples of updates provided to the community during the reporting period include:</p> <ul style="list-style-type: none"> <li>• Notification of the closure of Northcote Street, Chandos Street, Allum Street and Martin Street,</li> <li>• Temporary changes at Pomeroy Street, and</li> <li>• Temporary changes to the M4 Motorway.</li> </ul>
PL7	A Solar Access and Overshadowing report will be developed during detailed design to assess the impacts of overshadowing as a result of the final operational design.	Pre-construction	CSJ	Open	<p>This REMM is related to CoA B48 which provides details of the requirements for the preparation and timing of the Solar Access and Overshadowing Report.</p> <p>The Solar Access and Overshadowing Report in CoA48 will be prepared for these works once the project detailed design reaches a final stage, to be lodged within 12 months of the SSI approval (11 February 2016).</p> <p>Compliance against this REMM will therefore be reported on in the QCCR during development of the report and negotiation with affected residents.</p>
PL8	A Solar Access and Overshadowing report will be developed during construction planning to assess the impacts of overshadowing as a result of buildings at construction ancillary facilities that are two storeys (or equivalent) or greater in height, where they are immediately adjacent to residential properties.	Pre-construction	CSJ	Complete	<p>None of the ancillary facilities proposed in the approved AFMP (26 February 2016) have double stacked structures immediately adjacent to residential neighbours beyond those assessed in the approved EIS.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					A Solar Access and Overshadowing Report has been prepared for acoustic sheds and double stacked offices.
V1	The urban design and landscape objectives would continue to be considered during development.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V2	Explore opportunities to rationalise the project footprint during pre-construction.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V3	Engineer slopes with gradients no steeper than 3H:1V where possible.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46, and the detailed design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.  The project have adopted 3H:1V batter slope as the maximum slope for fill batters where feasible. For cut batters a 2H;1V slope has generally been adopted, however these have been flattened where feasible through consultation with the Urban Designers.
V4	Explore ways to integrate the project into existing streetscapes, to improve connectivity, amenity and community value.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46 and the detailed design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.  The design has either re-instated existing pedestrian connectivity where disturbed or has provided an alternative route.
V5	Optimise the integration of noise barriers and other features to improve amenity.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46 and the detailed design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					The locations of noise barriers will be included within the Operational Noise and Vibration Review, which will be lodged with the Secretary within six months of commencing construction (22 October 2016).
V6	Consider a standard design for retaining walls and major structures across the project, to present a coordinated 'suite of elements'.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMMREMM.
V7	Consider use of LED lighting, which saves energy, costs less to maintain and provides better, safer light quality for roads.	Pre-construction	CSJ	Open	The project lighting design includes the use of LED lighting throughout the project, except at the tunnel portals where an LED option is not currently not viable.
V8	Consider ways to maximise opportunities for tree planting, while also satisfying road design requirements.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM.
V9	Consider the inclusion of an arts strategy across the project.	Pre-construction	CSJ	Open	A Community and Social Management Plan will be prepared for the project in consultation with relevant councils and the community. This Plan is to identify social impacts of the project and details of management and mitigation measures. Further to this, a Residual Land Management Plan is required to be prepared. As part of the development of these Plans and the consultation process for the UDLP, feedback will be received from the community regarding their preferred management measures and requirements. This information will be used to inform WCXM4 Co



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					about the preference of the community to include an arts strategy across the project.
V10	Where mature street trees have been removed as part of construction of the project, these will be reinstated, where practicable, with appropriate species, in accordance with the Urban Design and Landscape Plan.	Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.  The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V11	Provide guidance about the future development of residual land, including ways to promote project integration and activation.	Pre-construction/ Construction	WCXM4 Co/CSJ	Open	This REMM will be addressed in the Residual Land Management Plan as required by CoA B57 and B46. This will be lodged with the Secretary prior to the commencement of operation.
V12	Consider having the detailed design regularly reviewed by an independent design and sustainability review panel to ensure design quality throughout each stage of works, in accordance with the WUDF Principle 6.6.	Pre-construction	CSJ	Open	CoA B44 requires that an independent Urban Design Review Panel (UDRP) be established to provide advice and guidance during detailed design and preparation of the UDLP. The UDRP has been established with the first meeting occurring on 15 April 2016 and 7 June 2016. Compliance will continue to be reported against CoA B44 in the QCCR.  CoA B51 requires the project obtains an excellent IS rating. To obtain the rating there is a requirement to review design with a view to ensure sustainability principles are integrated into the project. Compliance with CoA B44 will be reported in quarterly CTP as provided in Section 2.3 of this PCCR.  This condition relates to the pre-construction and detailed design phase, in particular for permanent built works that will be visible and are subject to the UDLP. Compliance against this condition will therefore continue to be reported on in the QCCRs and during development of the UDLP.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
V13	Retain existing vegetation around the perimeter of construction sites where feasible and reasonable.	Construction	CSJ	Open	<p>A Flora and Fauna Management Plan (FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the FFMP Section 5, FF9.</p> <p>Vegetation has been retained along the eastbound batter of the M4 Motorway, in the Pomeroy Street civil site (C2), along the northern boundary of the Concord Road tunnel site and along the eastern and northern boundaries of the Cintra Park tunnel site (C6).</p>
V14	Early implementation of noise barriers and landscape planting around ancillary facilities to provide visual screening and minimise noise impacts during construction.	Construction	CSJ	Open	<p>The design for permanent noise barriers and landscaping is still progressing and is not at a stage to be constructed onsite.</p> <p>Temporary noise barriers and hoarding were being erected at all construction sites during the reporting period to minimise noise impacts during construction works.</p> <p>Compliance against this condition will continue to be reported on in the QCCRs during development of the design and construction.</p>
V15	Locate equipment on construction sites, including buildings that are two storeys (or equivalent) or greater in height, to minimise visual impacts as far as feasible and reasonable.	Construction	CSJ	Open	<p>This REMM has been addressed in the Project AFMP (M4E-ES-PLN-PWD-00235) which was approved by DPE on 13 May 2016.</p> <p>CSJ have minimised the visual impacts of construction sites by:</p> <ul style="list-style-type: none"> <li>• Arranging offices in a lower area of the site,</li> <li>• Retaining trees to maintain a visual screen, and</li> <li>• Installing hoarding and / or noise barriers to screen the site.</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
V16	Acoustic shed, acoustic barrier and two storey site offices and amenities building design would aim to blend into the background where feasible and reasonable.	Pre-Construction/ Construction	CSJ	Open	This REMM has been addressed in the Project AFMP (M4E-ES-PLN-PWD-00235) which was approved by DPE on 13 May 2016.  The colour used on noise barriers and site hoarding has been selected via consultation with the community who were asked to note provide details of their preferred colour.
V17	Design of site hoardings would consider the use of artwork or project information.	Pre-Construction/ Construction	CSJ	Open	This REMM has been addressed in the Project AFMP (M4E-ES-PLN-PWD-00235) which was approved by DPE on 13 May 2016.  The colour used on noise barriers and site hoarding has been selected via consultation with the community who were asked to note provide details of their preferred colour.  Where temporary fencing is used onsite this be covered in a shade cloth with project graphics.
V18	Maintain site hoardings and perimeter areas including the prompt removal of graffiti.	Construction	CSJ	Open	This REMM has been addressed in the Project AFMP (M4E-ES-PLN-PWD-00235) which was approved by DPE on 13 May 2016.  Site hoarding was maintained during the reporting period, with no graffiti identified.  Compliance against this condition will continue to be reported on in the QCCRs.
V19	Revegetation and landscaping would be undertaken progressively.	Construction	CSJ	Open	This REMM has been addressed in the Project AFMP (M4E-ES-PLN-PWD-00235) which was approved by DPE on 13 May 2016.  The project is still in early construction stages, therefore areas are not yet available to revegetate or landscape.
V20	Cut-off and directed lighting would be used to ensure glare and light spill are minimised.	Construction	CSJ	Open	This REMM has been addressed in the Project AFMP (M4E-ES-PLN-PWD-00235) which was approved by DPE on 13 May 2016.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
V21	Lighting within ancillary facilities will be turned off or reduced to a level which maintains site safety, whenever the facility is not in use.	Construction	CSJ	Open	<p>This REMM has been addressed in the Project AFMP (M4E-ES-PLN-PWD-00235) which was approved by DPE on 13 May 2016.</p> <p>Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with the AQMP and this REMM.</p>
V22	For operational signage to be installed for the project, potentially affected receivers would be consulted on the final signage in relation to its location and associated impacts where applicable.	Construction	CSJ	Open	<p>This REMM will be addressed as part of the development of the signs and lines design package and the UDLP, required by CoA B45 and B46.</p> <p>Proposed operational signs are located with consideration to minimising visual or physical impacts on adjacent properties.</p> <p>CSJ have commenced consultation with the community and stakeholders in the vicinity of Variable Message Signs which are proposed to be installed within the next reporting period.</p> <p>This consultation was undertaken in accordance with the Community Communication Strategy (CCS) which has been prepared to comply with CoA C1, and was approved by DP&amp;E on 18 April 2016.</p>
V23	Consider engaging an appropriately qualified and experienced arborist and/or soil scientist to assess the feasibility of proposed tree planting (such as above the cut-and-cover sections) on structures.	Pre-Construction	CSJ	Open	<p>This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.</p> <p>The approach undertaken by CSJ and their urban designer is consistent with the REMM.</p>
V24	Consider the use of water sensitive urban design (WSUD) measures eg water harvesting off roads, incorporation of bio-	Pre-Construction	CSJ	Open	<p>This REMM is addressed in the project stormwater and drainage design which is currently under development.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	retention planting areas/planted swale treatment for stormwater polishing.				
V25	Consider the ‘integration of lighting and signage in-tunnel to enhance the travel experience,’ subject to detailed design, and user and safety audits.	Pre-Construction	WCXM4 Co/CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46, and tunnel lighting design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V26	During pre-construction, consider the gradation of light on approach to tunnel portals, subject to detailed design, and user and safety audits.	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46, and tunnel lighting design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V27	Consider 3D animation testing of the tunnel interior designs from the driver’s perspective.	Pre-Construction	CSJ	Open	This REMM will be addressed during the development of the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V28	During pre-construction, refinements to the ventilation facilities’ designs should be considered to further moderate their visual impact.	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V29	Refine substation designs during pre-construction to be integrated as far as possible within each landscape and urban context.	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V30	During pre-construction (if feasible), consider how the eastern ventilation facility addresses Walker Avenue. Explore whether the exterior of the ventilation facility can be oriented to mirror the Bunnings ‘street-wall’, with street trees providing scale mitigation and shade amenity.	Pre-Construction	CSJ	Open	The design of the Parramatta Road ventilation facility has been “squared up” to mirror the Bunnings opposite.  The inclusion of street trees will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
V31	Further develop the interface between the project pedestrian bridges and the existing shared paths and retaining walls.	Pre-Construction	CSJ	Open	The project design currently includes two pedestrian bridges at Concord Road and Parramatta Road (existing bridge which is altered to accommodate the cut and cover structures). This REMM is addressed in the project road geometry design and the UDLP as required by CoA B45 and B46, which will refine this interface at a detailed design level during the design development process. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V32	Further develop the bridge lighting, in particular pedestrian bridges and connecting shared path systems, during pre- construction.	Pre-Construction	CSJ	Open	This REMM is addressed in the project lighting design, relating to shared pathways, cycleways, and pedestrian bridge access stairs, with lighting providing safe access.
V33	Design the highly visible bridge parts, such as piers, girders and parapets, to ensure a controlled, integrated and high quality finish taking into account the Roads and Maritime <i>Bridge Aesthetics: Design guidelines to improve the appearance of bridges in NSW</i> .	Pre-Construction	CSJ	Open	This REMM is addressed in the UDLP as required by CoA B45 and B46, and project structural and road geometry design. During the design of the bridges urban design has been considered with the Roads and Maritime guideline, <i>Bridge Aesthetics</i> (July 2012), also taken in account. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V34	Refine composite sub-structures – such as Super-T girders, headstocks and piers – having regard to the bridge aesthetics guidelines.	Pre-Construction	CSJ	Open	This REMM is addressed in the UDLP as required by CoA B45 and B46, and project structural and road geometry design. During the design of the bridges substructures urban design has been considered with the Roads and Maritime guideline, <i>Bridge Aesthetics</i> (July 2012), also taken in account. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
V35	Develop the lighting of bridges and undercrofts to enhance safety and add character to these spaces.	Pre-Construction	CSJ	Open	This REMM is addressed in the project lighting design, with lighting providing safe access to the public.
V36	Explore opportunities to enhance accessible public areas under viaduct and bridge structures to create inviting, safe and interesting environments with good solar access.	Pre-Construction	CSJ	Open	This REMM is addressed in the UDLP as required by CoA B45 and B46, and project structural and road geometry design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V37	Develop the design of the Powells Creek on-ramp to consider access, amenity and safety.	Pre-Construction	CSJ	Open	This REMM is addressed in the UDLP as required by CoA B45 and B46, and project structural and road geometry detailed design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.
V38	Develop the integral abutment connection with the proposed Concord Road bridge deck.	Pre-Construction	CSJ	Open	During the detailed design process it was decided that the integral abutment connection at this location would not be used, with a conventional jointed abutment adopted instead.
V39	Create links between the project elements and realigned pedestrian access, and the existing footpaths.	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46 and the detailed design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The design has either re-instated existing pedestrian connectivity where disturbed or has provided an alternative route.
V40	Develop fascia wall panels and/or reinforced earth wall details for the proposed soil nail walls and reinforced earth walls.	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM.
V41	Refine the size, numbers and densities of proposed trees, to foster robust, rapid	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	growth and canopy closure for shade and screening.				and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V42	Undertake appropriate soil analysis and identify soil preparation requirements for landscaping treatments to inform the Urban Design and Landscaping Plan.	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM.
V43	Selection of appropriate species for mass plantings at project boundaries, and for sedimentation basin planting, to be undertaken as part of the Urban Design and Landscaping Plan by an appropriately qualified person.	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM.
V44	Minimise the earthworks and embankment modifications required to support the proposed cycleway on-ramp at Queen Street, in order to minimise tree loss.	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. This REMM is consistent with the approach undertaken by CSJ and the requirements of CoA B47. .
V45	Maintain and enhance pedestrian and cycle connectivity across the Parramatta Road corridor.	Operation	RMS	Open	Pedestrian and cycle connectivity will be addressed in the in the Access and Connectivity sub plan which forms part of the UDLP
V46	Residual land redevelopment typology, land use and design controls would be developed to provide certainty about future street amenity and activation	Operation	RMS	Open	This requirement will be addressed through the preparation of the Residual Land Management Plan required under CoA B57. This requirement relates to the operational phase of the project.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
V47	Maintain and enhance public transport connectivity across the Parramatta Road corridor and to adjacent suburbs, through appropriate location of bus stops, provision of shelters and attendant furniture	Operation	RMS	Open	This requirement relates to the operational phase of the project and will be reported on in quarterly reports prepared at this time.
V48	Consider opportunities to improve pedestrian and shared path amenity, for example by: <ul style="list-style-type: none"> <li>• Introducing shade trees of appropriate scale</li> <li>• Separating users from busy traffic lanes behind a landscape amenity strip</li> <li>• Providing appropriate lighting for pedestrian functions.</li> </ul>	Operation	RMS	Open	This requirement will be addressed through development of the UDLP which is currently being prepared.
V49	Maximise opportunities for tree planting within the road corridor, where this is feasible and appropriate.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V50	Provide a visually compelling, beautiful urban design overlay for the corridor that includes vegetation as one component.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V51	Minimise tall tree planting between Powells Creek and the Northern Line to maintain district views from the M4.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					The approach undertaken by CSJ is consistent with the REMM.
V52	Consider at-receiver planting to reduce visual and lighting impacts on residential receivers.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V53	Where practicable, incorporate substantial avenue planting along the northern edge of the motorway operations complex access road.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V54	Where possible, provide trees within the carpark within the motorway operations complex to provide shade and visually break up the hard landscape.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V55	Consider the incorporation of WSUD measures to provide passive irrigation of trees, particularly within carparks and other areas where stormwater run-on is limited.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46, and building designs. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. CSJ is investigating opportunities to provide a rainwater tank at the Motorway Control Centre.
V56	Explore opportunities with Strathfield Council to provide landscape screening and tree planting between the project corridor and the Park Road/Powell Street precinct.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
V57	Investigate with Strathfield Council the feasibility of providing a pedestrian/cycleway link along the northern edge of Powell Street where it joins the M4, to link directly to the Powells Creek Corridor between the M4 and the property on the eastern corner of Powell Street and Parramatta Road.	Pre-construction	WCXM4 Co/CSJ	Open	<p>This REMM will be addressed in the UDLP as required by CoA B45 and B46. The first works to be constructed that require the UDLP to be approved first are not due to be commenced June 2016.</p> <p>This condition relates to the construction phase, in particular for permanent built works that will be visible and are subject to the UDLP. Compliance against this condition will therefore continue to be reported on in the quarterly CTP during development of the UDLP.</p>
V58	During pre-construction, consider a formal park design that incorporates measures (eg mounding/deeper soils areas) to facilitate a successful large tree planting program between Underwood Road and Ismay Avenue.	Pre-construction	CSJ	Open	<p>This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.</p> <p>The approach undertaken by CSJ is consistent with the REMM.</p>
V59	Explore opportunities with local councils to provide avenue planting down both sides of the street, and a linking canopy across the road.	Pre-construction	CSJ	Open	<p>The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47. Meetings have been held with Canada Bay Council on 21 July, Strathfield Council on 26 July and Inner West Council on 2 August 2016 to discuss opportunities for avenue planting. Further consultation will occur and will be reported in subsequent QCCRs.</p>
V60	Consider the use of a planting mix for the proposed park on the corner of Short Street East and Underwood Road that draws upon the suburban setting of cultural plantings, and which may include elements such as park seating, other park furniture, paving, signage and lighting.	Pre-construction	CSJ	Open	<p>This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.</p> <p>The approach undertaken by CSJ is consistent with the REMM.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
V61	Consider at-receiver planting for residences at 65–71 and 73 Underwood Road and at the end of Short Street East.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V62	Consider the use of street trees along both sides of Short Street East.	Pre-construction	CSJ/WCXM4 Co	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V63	During pre-construction of the M4 on-ramp at Powells Creek, consider incorporating design features that maximise the height of the opening, and facilitate views and pedestrian/cycle access under the structure to the northern end of the park.	Pre-construction	CSJ	Open	This REMM will be addressed in the project structural design. The current design of this bridge has a length and height which provides views and access for pedestrians and cyclists under the structure.
V64	On completion of construction, the portion of land comprising Arnotts Reserve utilised by the project, will be re-instated in sympathy with elements of Council's Masterplan for the site.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. CSJ have reviewed Strathfield Council's Masterplan for the Arnotts Reserve and ensured that the proposed urban design in sympathy with the Masterplan, by no proposing planting in areas designated for hard-stand surfaces.
V65	Consider ways to increase the level of screening between the apartment block at the eastern end of Powell Street and the project.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V66	Design the-large 'island' parks that will be publicly accessible within the ramps to meet Crime Prevention Through Environmental Design (CPTED) requirements including, where feasible, a spaces that would actively encourage a significant level of park use.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V67	Consider the streetscape in front of the residual land on Sydney Street-for future for housing, to ensure that elements such as kerb and guttering, footpaths and street plantings are responsive to the adjoining/adjacent Powell's Estate HCA.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V68	For the replacement boundary wall on Concord Road fronting the Sydney Cheil Church, consider matching the design and materials of the existing wall, which is in keeping with the design of the church.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46, and the Concord Road Property Works design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM.
V69	Refine the design of the end of Edward Street to minimise the visual prominence of the on-ramp wall and noise barrier. Facilitate a planting edge between the on-ramp wall and the footpath, and between the footpath and the Edward Street turning head, that reflects the Federation-era character of the streetscape.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V70	Minimise the landscaping required between the carriageway and noise barrier (between Parramatta Road and the pedestrian bridge	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	over the tunnel on- and off-ramps), which could be difficult to maintain. Instead, retain sufficient room to provide screen planting along the edge of the M4.				and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V71	Consider ways to better integrate the existing disused land between the end of Alexandra Street and Parramatta Road eg a pocket park responding to the Federation era residential setting of the Edward Street area.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V72	Configure the construction and operational layout of the Cintra Park site so as to retain the mature line of trees running along the boundary and screening to adjoining receivers, where feasible and reasonable.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46, and the detailed design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The trees along the eastern boundary of Cintra Park have been maintained, with a temporary noise wall now separating the trees from the construction works. The operational layout of the Cintra Park has been amended following consultation with Canada Bay Council. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V73	Investigate opportunities during pre-construction to minimise the removal of established trees at Cintra Park.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46, and the detailed design. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The trees along the eastern boundary of Cintra Park have been maintained, with a temporary noise wall now separating the trees from the construction works. The operational layout of the Cintra Park has been amended following consultation with Canada Bay Council.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V74	Consider the provision of a landscape design response to Reg Coady Reserve that re-integrates the new road edge with the landscape character of the park.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V75	Consider a landscape response along the edge of Reg Coady Reserve edge which more closely reflects the existing, generally informal planting character of the reserve.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V76	Where feasible, consider moving the footpath away from the busy road edge on both sides of Dobroyd Parade.	Pre-construction	CSJ	Open	This REMM has been addressed in the road geometry design, with a nature strip included between the edge of road and the footpath wherever there is sufficient corridor width (i.e. > 3.5 m).
V77	Consider augmentation of the existing screen planting to the area between Waratah Street and Crane Avenue on the residential side to maximise screening of the noise barrier on the southern edge of Dobroyd Parade.	Pre-construction	CSJ	Open	This REMM was considered by CSJ during the detailed design process, however it is not possible to implement due to space restrictions and the location of a Variable Message Sign.
V78	Consider setting the noise barrier far enough back from Dobroyd Parade to provide an avenue of tall planting continuing up to Martin Street, as currently proposed north of Martin Street.	Pre-construction	CSJ	Open	This REMM was considered by CSJ during the detailed design process, however it is not possible to implement due to space restrictions.
V79	Consider an opportunity to extend the street tree planting along the western side of Wattle Street and Dobroyd Parade.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V80	Investigate opportunities to locate the footpath away from the busy kerb and provide tall tree planting between the kerb and the footpath, to match that proposed between Ramsey Street and Martin Street.	Pre-construction	CSJ	Open	This REMM has been addressed in the road geometry design, with a nature strip included between the edge of road and the footpath wherever there is sufficient corridor width (i.e. > 3.5 m), however this strip is not wide enough to allow for tall tree planting.
V81	Consider an integrated-approach to the noise barriers along Wattle Street and Dobroyd Parade.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM.
V82	Consider ways to provide pedestrian and streetscape amenity between the noise barriers and the street, and to integrate the area between the back fences of the Walker Street residences and the curving noise barrier.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM.
V83	Consider increasing the extent of street tree planting along the frontage between Chandos Street and Rogers Avenue.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V84	Consider refining the verge design to the southern edge of Parramatta Road to create a planted verge and avenue tree planting.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V85	Consider providing a planted verge and avenue tree planting between the footpath and the carriageway to the Parramatta Road frontage to the residual land on the corner of Bland Street.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
V86	Investigate opportunities to increase the proposed street tree planting to Walker Avenue, and seek to reinstate the original brush box street tree avenue character. This would reduce the view of the infrastructure for pedestrians and residential receivers.	Pre-construction	CSJ	Open	This REMM was investigated by CSJ during the detailed design process, however the area is outside of the project construction footprint and is not within CSJ's scope.
V87	Ensure that no street trees are removed from the northern side of Parramatta Road in front of, and immediately adjoining, Yasmar Estate.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM. During the reporting period no street trees were removed from the northern side of Parramatta Road, in front of or immediately adjoining Yasmar Estate.
V88	Consider establishing a stand of brush box trees to the northern corner of Orpington Street and Parramatta Road to tie in with the brush box tree planting in the opposite northern corner of Ashfield Park.	Pre-construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.
OpV1	In consultation with the relevant council, provide detailed design for park/residual	Operation	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	area landscape treatments that reflect the cultural setting of the adjoining residential precincts.				and B46, Annexure A for an update on the compliance of the UDLP.
OpV2	Undertake the design, development and implementation of proposed ‘pocket park’ spaces within the project footprint directly affected by construction of the project adjacent to residential areas in consultation with the local council, such that upon completion of approved projects and an agreed plant establishment period, the ongoing care, control and management of these areas could be taken on by council.	Operation	WCXM4 Co / CSJ	Open	<p>This REMM will be addressed in the UDLP as required by CoA B45 and B46. Work on the project urban design has commenced, with the first round of consultation meetings occurring in late-April 2016 with Ashfield Council, Canada Bay Council, Strathfield Council, the UDRP and SOPA.</p> <p>Consultation with Councils will continue to occur during public display of the UDLP.</p>
OpV3	Undertake screen planting in consultation with the relevant council to council verge areas.	Operation	CSJ	Open	<p>This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.</p> <p>The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.</p>
SE1	All acquisitions will be under the terms of the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> (NSW) and in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014d).	Pre-Construction	WCXM4 Co	Open	Property acquisition has been undertaken in accordance with the terms of the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> (NSW) and in accordance with the Land Acquisition Information Guide (Roads and Maritime 2014d).
SE2	Home owners will be supported to acquire alternative independent property valuations, with a commitment from Roads and Maritime to ensure property owners will not be left out of pocket (ie property valuation fees to be paid at the time the invoice is due, if this is before settlement).	Pre-Construction	WCXM4 Co	Open	WCXM4 Co and RMS have encouraged each property owner to engage their own independent valuer to obtain a valuation. RMS also compensate the owner for this valuation as part of the settlement amount. In some cases where a property owner is not able to pay for the valuation, RMS have made arrangements to reimburse the money prior to settlement.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<p>Relocation support teams will be provided to assist households that must relocate (both renters and owners) and land owners. These services could include:</p> <ul style="list-style-type: none"> <li>• Assistance with identifying alternate properties</li> <li>• Social support for households relocating within the area and to other areas, providing contacts and information in regard to social services, facilities and logistical matters (eg the logistics of moving including required administrative tasks)</li> <li>• Access to financial advice for affected households</li> <li>• Advertising of the WestConnex Assist counselling program will continue as well as providing first language support for households with English as a second language.</li> </ul>				<p>The services which are, and have been, available to support residents who are being relocated as a result of property acquisition are detailed in section 6.2 of in the Social Impact Assessment in Appendix M of the EIS and include:</p> <ul style="list-style-type: none"> <li>• The WestConnex Assist counselling service</li> <li>• Provision of an independent service to vulnerable households to assist with their relocation</li> <li>• Community relations support to respond to community issues, concerns and requests and to offer a translation service to households for whom English is a second language</li> </ul> <p>RMS have contacted residential and commercial tenants who are currently renting properties to be acquired for the project, to discuss timeframes for acquisition and compensation (where applicable). Residents who are having their properties acquired or are relocating due the M4 East project (e.g. tenants) have been advised to contact WestConnex directly to discuss available support services.</p>
SE3	<p>A community communication strategy (or equivalent plan) will be implemented to provide timely, regular and transparent information about changes to access and traffic conditions, details of future work programs and general construction progress throughout the construction phase of the project. Information will be provided in a variety of ways including letter box drops, media releases, website, signage and 24 hour project information line.</p>	Pre-Construction and Construction	CSJ	Open	<p>A Community Communication Strategy (CCS) has been prepared to comply with CoA C1, and approved by DP&amp;E on 18 April 2016. The CCS addresses this REMM in Section 1.2.4. Community notification is also summarised in Section 6.14.4 of the TAMP. Examples of updates provided to the community during the reporting period include:</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<ul style="list-style-type: none"> <li>• Notification of the closure of Northcote Street, Chandos Street, Allum Street and Martin Street,</li> <li>• Temporary changes at Pomeroy Street, and</li> <li>• Temporary changes to the M4 Motorway.</li> </ul> <p>Notifications have also been provided relating to the commencement of demolition works, establishment of each compound, commencement of tunnelling and proposed out of hours works.</p>
SE4	<p>The following specific measures will be undertaken to minimise traffic-related impacts on the community:</p> <ul style="list-style-type: none"> <li>• Consultation (with Haberfield Public School and Ashfield Council) to determine if traffic management is required at egress points at the Parramatta Road civil site exit at Bland Street</li> <li>• Consultation with key local infrastructure providers will be undertaken when developing the construction traffic and safety management plan (or equivalent plan), including notification to local emergency services about changes to local road networks, particularly road closures</li> <li>• Relocating Orpington Street bus stop in consultation with the Willows Private Nursing Home to minimise walking distance between the relocated bus stop and the nursing home where possible</li> </ul>	Pre-Construction and Construction	CSJ	Open	<p>A Community Communication Strategy (CCS) has been prepared to comply with CoA C1, and was approved by DP&amp;E on 18 April 2016. The CCS addresses this REMM in Section 1.2.4. Community notification is also summarised in Section 6.14.4 of the TAMP.</p> <p>During the reporting period:</p> <ul style="list-style-type: none"> <li>• The project consulted with Inner West Council (was Ashfield Council) on the use of the Bland Street access point. It was identified that Bland Street would not be used as the primary heavy vehicle access / egress, and if heavy vehicle access was required, traffic control would be in use to manage the interface with pedestrians and traffic,</li> <li>• During the development of traffic plans the Traffic Transport Liaison Group was consulted on the development of the plan, with significant closures and changes communicated to the project wide network including schools and emergency services,</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<ul style="list-style-type: none"> <li>• Bus stop, pedestrian and cycle way changes will be advertised locally, including to local social infrastructure providers</li> <li>• Appropriate signage will be applied to ensure motorists understand how to access local businesses adjacent to construction works.</li> </ul>				<ul style="list-style-type: none"> <li>• The bus stop at Orpington Street was not relocated during the reporting period; this consultation will be completed prior to its movement;</li> <li>• Bus stop, pedestrian and cycle way changes are advertise through the use of signage including VMS, and</li> <li>• During the reporting period signage was not required to inform motorists of access to local businesses.</li> </ul>
SE5	Support will be given to local beautification of construction ancillary infrastructure sites through temporary plantings, decorated hoardings, or similar, to assist in reducing visual impacts. Consultation will be undertaken with immediately adjoining landowners in planning and implementing these approaches to contribute to sustaining community cohesion and identity throughout the construction period.	Construction	WCXM4 Co/CSJ	Open	Consultation with immediately adjoining landowners has been occurring in relation to the construction ancillary infrastructure sites. This consultation includes seeking feedback regarding aspects that relate to noise wall installation and appearance.
SE6	Local communities will be consulted in the development of options and plans for the reuse of residual land for open public spaces, or as part of the public domain to increase community connectedness and sense of belonging through landscaped areas with public art.	Post-Construction	WCXM4 Co	Open	A Residual Land Management Plan will be prepared and will include plans for the reuse of residual land for open public spaces. This REMM is not applicable to Stage 2 as it is a post-construction requirement. It will therefore be reported against in the Pre-Operation Q reports.
SE7	Providing support for local community development activities, such as community events, to assist with restoring and increasing community cohesion during construction.	Construction	WCXM4 Co	Open	A Community Communication Strategy (CCS) has been prepared to comply with CoA C1, and was approved by DP&E on 18 April 2016. Compliance with CoA C1 will be reported quarterly in the CTP as outlined in Section 2.3 of this PCCR.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					A Community Cohesion Program will be prepared in accordance with the requirements of CoA B56 no later than 12 months after the commencement of construction. The CCS addresses this REMM.
SE8	A business management plan will be developed to effectively communicate with affected businesses during the construction of the project. The plan will address the key issues raised by businesses, including access arrangements, traffic conditions, parking and local supplier opportunities.	Construction	WCXM4 Co	Not yet triggered	A Community Communication Strategy has been prepared to comply with CoA C1 and was approved by DP&E on 18 April 2016. Management of businesses is detailed within this document. Further to this, a Business Management Plan will be prepared during the construction phase to assist with managing any further potential impacts to businesses.
SE9	A 24 hour project information line and website will be maintained to enable business owners and operators to receive prompt responses to their concerns, access information and view assistance measures in place during construction related work.	Pre-Construction and Construction	CSJ	Open	WCXM4 Co established the community communications information for complaints and enquiries during the preparation of the Environmental Impact Statement for the Project, fulfilling the requirements of this condition. These same consultation mechanisms are being utilised by CSJ during the construction phase of the project to ensure continuity of contact information for the community and stakeholders. A toll free number (1800 660 248) has been established to receive enquires and complaints relating to the project. This number is manned 24 hours a day, 7 days a week. The telephone number, the postal address and the email address have been published in newspapers at regular intervals during construction. The information is available on the project website, being:



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p><a href="http://www.westconnex.com.au">www.westconnex.com.au</a></p> <p><a href="http://www.westconnex.com.au/explore_the_route/stage_1/m4_east_resources.html">www.westconnex.com.au/explore_the_route/stage_1/m4_east_resources.html</a></p>
SE10	<p>Consultation will continue with all key social infrastructure providers to assist them and their clients in planning for and adapting to the changes expected during the construction period.</p>	<p>Pre-construction and Construction</p>	<p>CSJ</p>	<p>Open</p>	<p>This REMM is addressed in the Community Communication Strategy (CCS) which was prepared to comply with CoA C1, and was lodged with DP&amp;E for assessment and approval on 31 March 2016.</p> <p>During the reporting period consultation was undertaken with the following social infrastructure providers:</p> <ul style="list-style-type: none"> <li>• Sydney Chiel Church on upcoming construction works, traffic switches, design changes and condition surveys,</li> <li>• Jehovah Witnesses Kingdom Hall on upcoming construction works, traffic switches and parking,</li> <li>• The Infants Home on upcoming traffic switches and condition surveys,</li> <li>• Haberfield Public School and Dobroyd Point Public School on upcoming traffic switches,</li> <li>• St Andre’s Anglican Church on upcoming traffic switches,</li> <li>• Concord Baptist Church of upcoming traffic switches, and</li> <li>• Ashfield Bowling Club to arrange for notifications to be provided.</li> </ul>
SE11	<p>Notification of any traffic and access changes during construction periods will be</p>	<p>Pre-construction</p>	<p>CSJ</p>	<p>Open</p>	<p>This REMM is addressed in the Community Communication Strategy (CCS) which was</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	provided to emergency services well in advance of the changes occurring.	and Construction			<p>prepared to comply with CoA C1, and was lodged with DP&amp;E for assessment and approval on 31 March 2016, and Section 6.14.2 TAMP.</p> <p>Examples of notifications provided to the community during the reporting period include:</p> <ul style="list-style-type: none"> <li>• Notification of the closure of Northcote Street, Chandos Street, Allum Street and Martin Street,</li> <li>• Temporary changes at Pomeroy Street, and</li> <li>• Temporary changes to the M4 Motorway.</li> </ul>
SE12	Route changes will be notified to emergency services and social infrastructure providers to ensure they can continue to operate effectively.	Pre-Construction	CSJ	Open	<p>This REMM is addressed in Section 6.14.2 of the approved Project TAMP and the Community Communication Strategy (CCS) which was prepared to comply with CoA C1, and was approved by DP&amp;E on 18 April 2016.</p> <p>Emergency services have been invited to attend the project Traffic and Transport Liaison Group. A meeting will be held with emergency services in August 2016 to discuss staging, construction progress and communication strategies.</p> <p>Representatives from the project have met with the Ashfield Police, Burwood Police and fire station representatives from Concord, Burwood and Drummoyne to provide a project briefing and specifically of works at Cintra Park tunnel site.</p>
SE13	Opportunities will be explored to provide alternative land for the Cheil Church to accommodate open space, a children's playground and parking in consultation with the property owners and the congregation of users.	Pre-Construction	WCXM4 Co	Open	<p>The land acquisition process for Cheil Church included working with Cheil Church to explore opportunities for alternative land which would be available for the Church.</p> <p>An agreement was ultimately made with the Church regarding acquisition of their land.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
SE14	Strathfield Council and Strathfield Girl Guides will be assisted to identify and access temporary premises.	Pre-Construction	WCXM4 Co	Open	Strathfield Girl Guides were provided with support through an independent service. This support included personal assistance with looking for potential relocation sites and assisting with relocation itself.
SE15	Continued support will be provided to the Zongde Temple in planning for relocation in the short and long term.	Pre-Construction	WCXM4 Co	Open	Support has been provided by WCXM4 Co / RMS to Zongde Temple during the relocation process.
SE16	Restoration of Bill Boyce and Reg Coady reserves to at least their pre-construction condition in consultation with the relevant councils and local communities.	Pre-Construction	WCXM4 Co	Not yet triggered	Though the timing of this condition is listed as 'pre-construction', any restoration of Bill Boyce and Reg Coady Reserve will not occur until after cessation of use of these sites as a construction compound. Consultation with relevant Councils will occur prior to this and will be reported in quarterly reports prior to the operational phase.
SE17	Consultation will be undertaken with social infrastructure providers (specifically aged care and child care facilities) in regard to any respite periods (where reasonable and feasible) for the most intrusive construction activities undertaken during the day.	Pre-Construction	CSJ	Open	This REMM is addressed in the Community Communication Strategy (CCS) which was prepared to comply with CoA C1, and was lodged with DP&E for assessment and approval on 31 March 2016. Additionally Section 7.1 approved NVMP addresses this REMM.
OpSE1	Opportunities for providing increased pedestrian and cyclist connectivity, especially in the vicinity of Wentworth Street, Underwood Road and Allen Street, Homebush, will be explored.	Operation	WCXM4 Co	Not yet triggered	This requirement does not relate to Stage 2 of the project and is an operational phase requirement. Further reporting against this REMM will occur prior to the operational phase.
OpSE2	Consult with Transport for NSW in regard to improving pedestrian access in the vicinity of the Concord Road Interchange and specifically to bus stops.	Operation	WCXM4 Co	Not yet triggered	This requirement is an operational phase requirement. Further reporting against this REMM will occur prior to the operational phase.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
OpSE3	Long-term amenity impacts (eg changes to local noise) can affect individual wellbeing and also the cohesion and connectedness of communities. Support for local community development activities (eg grants provided through councils or local community organisations) will assist with restoring and increasing community cohesion following construction, through activities such as community events.	Operation	WCXM4 Co	Not yet triggered	A Community Cohesion Program will be prepared in accordance with the requirements of CoA B57 no later than 12 months after the commencement of construction. Further reporting against this REMM will occur in subsequent QCCRs.
OpSE4	Support will be given to local beautification of operational facilities and spaces through public art and landscaping to assist in reducing visual impacts associated with these facilities. Consultation will be undertaken with the community in planning and implementing these approaches to contribute to sustaining community cohesion and identity following the construction period.  Support will be provided for local community development activities such as community events to assist with restoring and increasing community cohesion post construction.  Consideration will be given to the creation of legacy projects that deliver social benefit, such as developing residual land as open space areas. Legacy projects will be identified and developed in consultation with local councils.	Post-Construction	WCXM4 Co/CSJ	Not yet triggered	A Community and Social Management Plan will be prepared in accordance with the requirements of CoA B57 no later than 12 months after the commencement of construction. This Plan will include details of management and mitigation measures to be implemented across the project. The UDLP will also address items in relation to beautification of operational facilities.  Further reporting against this REMM will occur in subsequent QCCRs.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	Tree planting will be maximised in those areas within the project corridor where this is feasible and appropriate within an overall design framework.				
SW1	<p>A soil and water quality management plan will be prepared in consultation with the New South Wales Environment Protection Agency and NSW Office of Water and in accordance with:</p> <ul style="list-style-type: none"> <li>• Blue Book requirements</li> <li>• RTA Code of Practice for Water Management (RTA 1999).</li> </ul>	Pre-Construction	CSJ	Complete	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>This REMM is addressed in the approved SWMP.</p>
SW2	Work method statements will be prepared for waterway works with particular emphasis on the early implementation of erosion and scour protection requirements.	Pre-Construction	CSJ	Open	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>This REMM is addressed in the approved SWMP Table 13 W1-W4.</p> <p>There have been no works in watercourses during the reporting period for this QCCR.</p>
SW3	A qualified soil conservationist will develop the initial project erosion and sediment control plans and advise on appropriate controls, implementation and monitoring and management processes.	Pre-Construction and construction	CSJ	Open	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>This REMM is addressed in the approved SWMP Section 3.2, Table 13 T2, which was prepared by a qualified soil conservationist. The soil conservationist also prepared the initial site specific ESCPs for the ancillary facility sites.</p>
SW4	Tool box talks or similar inductions will be carried out to inform employees of erosion and sedimentation control plans.	Pre-Construction	CSJ	Open	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
		and construction			<p>prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>This REMM is addressed in the approved SWMP Section 3.2, Table 13 T1 and T3.</p> <p>The project wide site project induction includes a section on erosion and sediment control and management. It is mandatory that all personnel, workforce and sub-contractors attend the Project Induction prior to commencing work on site.</p> <p>During the report period toolbox talks on concrete washouts, site exit controls and wet weather controls were completed with the workforce at Cintra Park tunnel site, Homebush Bay Drive civil site and Underwood Road tunnel site respectively.</p>
SW5	A surface water quality monitoring program for the pre- construction, construction and operation will be undertaken in accordance with the ANZECC Guidelines and RTA Guideline. The program will be periodically reviewed so that it provides appropriate information relevant to the project implementation phase.	Pre-Construction and construction	CSJ	Open	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>A Water Quality Monitoring Program (WQMP) (M4E-LSJ-PR-00-000-001-041) has been prepared to comply with CoA B18 and was conditionally approved by DP&amp;E on 6 May 2016, with a revision required prior to construction commencement. This revised Plan was provided to DP&amp;E on 10 May 2016.</p> <p>This REMM is addressed in the approved SWMP Table 13 B1-B6, G10, Q1 and Annexure A.</p>
SW6	<p>Measures will be implemented to minimise the risk of erosion and sedimentation. These measures may include:</p> <ul style="list-style-type: none"> <li>Disturbed areas will be minimised and revegetated or stabilised as soon as practical</li> </ul>	Pre-Construction and construction	CSJ	Open	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>This REMM is addressed in the approved SWMP Table 13, in particular G1-G11 &amp; S1-S12.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<ul style="list-style-type: none"> <li>Erosion control measures such as sediment fences, check dams, temporary ground stabilising, diversion berm or site regrading will be installed as appropriate</li> <li>Where practical, clean water will be diverted away from works or disturbed areas</li> <li>Measures will be employed to control ground stability and limit run-off lengths and velocities within the construction ancillary facilities</li> <li>Wheel wash or rumble grid systems will be installed, where practical, at compound heavy vehicle exit points to minimise the transfer of soil from construction areas to roadways</li> <li>Erosion and sedimentation controls will be regularly inspected to maintain performance to the design criteria and design specifications. Controls are to be upgraded or altered if these objectives are found to not be satisfied.</li> </ul>				<p>Site specific erosion and sediment control plans include measures to minimise erosion and maximise on-site sedimentation. Their implementation is monitored through Weekly Environmental Inspections and fortnightly inspections with the project Environmental Representative and other regulators, with observations and actions identified in the inspect reports. Confirmation of the close-out of actions is provided during the following inspection.</p>
SW7	<p>Measures will be implemented to minimise the risk of scour of waterways. These measures may include:</p> <ul style="list-style-type: none"> <li>Permanent scour protection measures required for the operational phase will be installed early, where practical</li> <li>Work platforms or access tracks required in the vicinity of waterways will be constructed of</li> </ul>	Construction	CSJ	Open	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>This REMM is addressed in the approved SWMP Table 13 G3 and W1-W4.</p> <p>No construction works have been completed in the vicinity of waterways. The detailed drainage design includes scour protection measures.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	large clean rock material wrapped or underlain with geofabric.				
SW8	<p>Measures will be implemented to manage stockpiles. These measures may include:</p> <ul style="list-style-type: none"> <li>• Stockpiles will to be located outside of overland flowpaths, riparian corridors and finished and contoured so as to minimise loss of material in flood or rainfall events</li> <li>• Stockpiles left exposed and undisturbed for longer than 28 days will be stabilised by compaction then either:                             <ul style="list-style-type: none"> <li>– Sprayed with suitable tackifier</li> <li>– Covering with anchored fabrics</li> <li>– Seeded with sterile grass.</li> </ul> </li> </ul>	Construction	CSJ	Open	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>This REMM is addressed in the approved SWMP Table 13 P1-P12.</p> <p>Site specific erosion and sediment control plans include measures to manage stockpiles. Their implementation is monitored through Weekly Environmental Inspections and fortnightly inspections with the project Environmental Representative and other regulators.</p>
SW9	<p>Measures will be implemented to minimise the risk of spills. These measures may include:</p> <ul style="list-style-type: none"> <li>• Spill containment will be included at locations where there is direct discharge of stormwater to receiving waterways</li> <li>• Appropriately bunded areas will be provided for storage of hazardous materials such as oils, chemicals and fuels</li> <li>• Adequate controls around stockpile areas and excavation works will be installed to minimise the risk of contaminants</li> </ul>	Construction	CSJ	Open	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>This REMM is addressed in the approved SWMP Table 13 C1-C12.</p> <p>Spill kits have been provided across the project to enable immediately response to spills. All chemicals are also stored on bunds or within a bunded container.</p> <p>Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with the AQMP and this REMM.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<p>being washed into waterways or stormwater systems</p> <ul style="list-style-type: none"> <li>Maintenance of containment/spill infrastructure and clean-up procedures for on-site spills will be undertaken</li> <li>Spilt materials and/or any contaminated materials will be disposed of appropriately.</li> </ul>				During the reporting period there were nine environmental incidents, relating to minor spills onsite. Following each incident the spill kit onsite was deployed and contaminated material was disposed of, ensuring additional soil and water were not contaminated.
SW10	Disturbed areas, including riparian environments, will be rehabilitated as soon as practical. Measures will include revegetation (using native species from the relevant local vegetation communities) and stabilisation.	Construction	CSJ	Open	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>This REMM is addressed in the approved SWMP Table 13 W4, V1-V4.</p> <p>No riparian environments were disturbed during the reporting period. The rehabilitation of other disturbed areas will be reported on in future reporting periods.</p>
OpSW1	Measures to prevent runoff, stormwater or spillage being directed onto other roadways outside of the project footprint will be implemented.	Operation	CSJ	Open	This REMM has been addressed in the project drainage design.
OpSW2	Water quality monitoring will continue from SW5 for at least 12 months post-construction or until any affected waterways are certified by an independent expert as being rehabilitated to an acceptable condition as required by any condition of approval.	Operation	WCXM4 Co	Open	This REMM is addressed in the Water Quality Monitoring Program (WQMP) (M4E-LSJ-PR-00-000-001-041) which has been prepared to comply with CoA B18 and was approved by DP&E on 6 May 2016.
C1	Should there be construction work in the vicinity of BH1344, further site	Pre-Construction	CSJ	Not yet triggered	During the reporting period no construction works were completed in the vicinity of BH1344.





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	investigations will be undertaken to confirm the presence and determine the nature of contaminants of potential concern in this area.				
C2	Hazardous materials assessments will be undertaken for buildings proposed for demolition to manage potential risk of exposure to site workers during these works. Management strategies will be developed from these assessments and will be included safe work method statements and/or Waste Management Plan.	Pre-Construction	CSJ	Open	<p>A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA B22 and was approved by DP&amp;E on 23 March 2016. This REMM is addressed in the approved CLMP Section 4.1, CL2.</p> <p>A Waste Resource Management Plan (WRMP) (M4E-ES-PLN-PWD-00244) has been prepared to comply with CoA B36 – 40 and D 46 and was approved by DP&amp;E on 6 April 2016. This REMM is addressed in the approved WRMP Annexure A Section 4.1.</p> <p>Under the provisions of the Demolition Management Plan and the Contaminated Land Management Plan, hazardous materials assessments have been completed at the Underwood, Concord Road, Northcote Street, Wattle Street and Parramatta Road sites during the reporting period.</p> <p>Further inspections are due to be undertaken at Wattle Street and Parramatta Road sites as access becomes available in July and August 2016.</p>
C3	Further site investigations will be undertaken to assess the level and extent of asbestos in publicly accessible areas beside the M4 in Section 1 of the project footprint.	Pre-Construction	CSJ	Open	<p>A Contaminated Land Management Plan CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA B22 and was approved by DP&amp;E on 23 March 2016. This REMM is addressed in the approved CLMP Section 4.1, CL1.</p> <p>Site investigations for the northern and southern side of the M4 have been undertaken, and</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					findings documented in the Technical Note for Homebush Bay Drive.
C4	Targeted site investigations will be undertaken at the former laundry/dry cleaners at 225-227 Parramatta Road, Ashfield and the former service station located at 186 Parramatta Road, to confirm the presence of any latent contamination.	Pre-Construction	CSJ	Open	A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA B22 and was approved by DP&E on 23 March 2016. This REMM is addressed in the approved CLMP Section 4.1, CL1.  Site investigations for 225-227 Parramatta Road and 186 Parramatta Road have been undertaken, with findings documented in the Technical Notes for the Parramatta Road Ventilation Facility and Parramatta Road.
C5	Procedures to manage unexpected contamination finds and hazardous materials identified during site preparation and/or construction works will be prepared. The procedures will include details for the management of the following identified contaminants: <ul style="list-style-type: none"> <li>• PAHs and benzo(a)pyrene TEQ</li> <li>• Latent contamination.</li> </ul>	Construction	CSJ	Open	A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA B22 and was approved by DP&E on 23 March 2016.  This REMM is addressed in the approved CLMP Section 4.1, CL10, and the Unexpected Finds Protocol.  During the reporting period there were 26 unexpected contaminated finds, all of which were asbestos fragments. Following each find the Unexpected Finds Protocol was implemented, including completion of the Unexpected Finds form, internal notification, making the area safe and consultation with the project contaminated land consultant to identify suitable management measures.
C6	Potentially contaminated areas directly affected by the project will be investigated and managed in accordance with the requirements of the <i>Contaminated Land Management Act 1997</i> (NSW) and <i>Contaminated Sites: Guidelines for</i>	Construction	CSJ	Open	A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA B22 and was approved by DP&E on 23 March 2016.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<i>Consultants Reporting on Contaminated Sites</i> (OEH 2011).				This REMM is addressed in the approved CLMP Section 4.1, CL21.
C7	Where passive dewatering of the aquifer system is required, additional contamination sampling (of groundwater and seepage quality) will be completed to assess the potential management and disposal options. A pre-construction baseline groundwater monitoring plan has been implemented to gather water quality data to inform management and disposal options of groundwater seepage during construction.	Pre-Construction and construction.	CSJ	Open	A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA B22 and was approved by DP&E on 23 March 2016.  This REMM is addressed in the approved CLMP Section 4.1, CL16.  Preconstruction groundwater monitoring commenced in June 2015, with the results informing the project Hydrogeological Model Report (00-120-052) details the groundwater conditions and features identified along the alignment. This report was issued as Final Design in March 2016.
C8	Any excavated soil contaminated with benzo(a)pyrene will be managed to prevent spreading potentially contaminated soil on final ground surfaces where the general public could be exposed post construction.	Construction	CSJ	Open	A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA B22 and was approved by DP&E on 23 March 2016.  This REMM is addressed in the approved CLMP, Section 4.1, CL7, and in site specific Technical Notes.
C9	Further waste classification will be undertaken during construction to allow appropriate soil management and disposal, in particular for areas that were not accessible during this assessment (including private properties). Details of sampling and analysis protocols will be included in the Spoil Management Plan and Construction Soil and Water Quality Management Plan (refer to Chapter 23 (Resource Use and Waste) of the EIS).	Construction	CSJ	Open	A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA B22 and was approved by DP&E on 23 March 2016. This REMM is addressed in the approved CLMP Section 4.1, CL13 and CL14.  Waste classification is also addressed in the Waste and Resource Management Plan, Table 13 G14.  Waste classification has been completed at all sites as part of the establishment and construction activities.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
C10	<p>Asbestos handling and management will be undertaken in accordance with an Asbestos Management Plan and relevant State legislation, government policies and Australian Standards. The plan will include:</p> <ul style="list-style-type: none"> <li>• Protocols and procedures for entering and safe working in areas with surface asbestos (eg Sections 1 and 3) with respect to asbestos containing materials (fibrous and cement-bound)</li> <li>• Appropriate remediation/management strategies.</li> </ul>	Pre-Construction	CSJ	Open	<p>A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016.</p> <p>This REMM is addressed in the approved CLMP Section 4.1, CL23.</p> <p>A separate Asbestos Management Plan has been prepared as part of the Project Safety Management System. This plan has been implemented across the project, with asbestos identified at the Homebush Bay Drive civil site, Underwood Road civil and tunnel site, Concord Road civil and tunnel site, Cintra Park tunnel site, Northcote Street tunnel site, Wattle Street civil site and Parramatta Road civil site.</p>
C11	<p>Confirmatory testing of areas identified as disturbed terrain (eg such as near, to Bedford Road and Verley Drive (Section 1), Concord Oval (Section 5), and Wattle Street (Section 6)) will be carried out in areas where potential acid sulfate soils have been mapped, to confirm their presence or absence and, if required, of stockpiles to obtain a specific liming rate.</p>	Construction	CSJ	Open	<p>A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016. This REMM is addressed in the approved CLMP Section 4.1, CL19 and the ASSMP.</p> <p>Testing has been completed within sections 1, 5, and 6, with results documented in the Technical Notes for Homebush Bay Drive, Cintra Park, and Wattle Street.</p>
C12	<p>If acid sulfate soils are encountered, they will be managed in accordance with the <i>Acid Sulfate Soil Manual</i> (Acid Sulfate Soil Management Advisory Committee, 1998).</p>	Construction	CSJ	Open	<p>A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016. This REMM is addressed in the approved CLMP Section 4.1, CL18 and the ASSMP.</p> <p>An Acid Sulfate Soils Management Plan was prepared as a sub-plan to the CLMP, and was conditionally approved by the DP&amp;E on 23 March</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>2016. The DP&amp;E approval stated that if acid sulfate soils are discovered during construction works, they must not be treated on site until the Acid Sulfate Soil Management Plan is updated to include the locations where the material is to be treated and that the updated plan is signed-off by DP&amp;E.</p> <p>Acid sulfate soils disturbed during the reporting period within Reg Coady Reserve were treated offsite.</p>
C13	Demolition works will be undertaken in accordance with Australian and NSW WorkCover Standards.	Pre-Construction	CSJ	Open	<p>A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016. This REMM is addressed in the approved CLMP and the Demolition Control Plan.</p> <p>Demolitions works which have been completed as part of the establishment and construction works have complied with this REMM.</p> <p>During the reporting period NSW WorkCover completed site inspections during demolition works at Northcote Street tunnel site and Wattle Street civil site.</p>
C14	Appropriate mitigation measures including stockpiling and management of potentially contaminated material will be undertaken at building demolition sites to prevent movement of material into receiving waters.	Pre-Construction	CSJ	Open	<p>A Contaminated Land Management Plan (CLMP) (M4E-ES-PLN-PWD-00236) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23 March 2016. This REMM is addressed in the approved CLMP Section 4.1, CL8.</p>
OpC1	Procedures to address spills, leaks and tunnel washing will be developed and implemented during operation of the project.	Operation	WCXM4 Co	Not yet triggered	<p>Procedures to address spills will be developed and included within the Operational EMP.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
FD01	<p>A flood management strategy (FMS) will be prepared to manage flooding and stormwater related issues and will include:</p> <ul style="list-style-type: none"> <li>• The layout of construction ancillary facilities</li> <li>• Location of amenities buildings and equipment outside high flood hazard areas</li> <li>• Controlled diversion of overland flow either through or around work areas</li> <li>• Staging construction to limit the extent and duration of temporary works on the floodplain</li> <li>• Monitoring weather conditions</li> <li>• Ensuring construction equipment and materials are removed from floodplain areas at the completion of each work activity, or upon issuing of a weather warning of impending flood producing rain</li> <li>• Provision of temporary flood protection for properties identified as being at risk of adverse flood impacts during any stage of construction of the project</li> <li>• Development of flood emergency response procedures to remove temporary works during periods of heavy rainfall and staff evacuation plans</li> <li>• For site facilities located within the floodplain, the FMS will identify how risks to personal safety and damage</li> </ul>	Pre-Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and project drainage design have been developed to address this REMM.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	to construction facilities will be managed.				
FD02	<p>Adverse flood impacts on existing development will be managed through the FMS. This may include:</p> <ul style="list-style-type: none"> <li>• A detailed hydrologic and hydraulic assessment into flooding behaviour and mitigation measures required during detailed design</li> <li>• Design of works within the floodplain to minimise adverse impacts on surrounding development for flooding up to the 100 year ARI event. Assessment will also be made of impacts during flooding in excess of the 100 year ARI event up to the PMF, in the context of impacts on critical infrastructure and flood hazards</li> <li>• Floor level survey will be carried out at all properties at risk (where there is a potential increase in flood levels) to confirm whether construction activities will increase flood damages. Where flooding potential is confirmed, management measures for construction works and operational design will be incorporated.</li> </ul>	Pre-Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and project drainage design have been developed to address this REMM.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
FD03	Appropriate local stormwater measures will be provided, where required.	Pre-Construction and construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and project temporary works packages have been developed to address this REMM.</p> <p>Local stormwater measures were also considered during the development and implementation of Erosion and Sedimentation Control Plans at all construction sites.</p>
FD04	The project will be designed to manage the potential impacts due to climate change in accordance with the <i>Practical Considerations of Climate Change – Floodplain Risk Management Guideline</i> (DECC 2007).	Pre-Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and project drainage design have been developed to address this REMM, with section 4.3 of the Flood Mitigation Strategy – Project Wide – Permanent Works assessing the implications of climate change.</p>
FD05	Refinement of XD02 realignment and reshaping of the overbank area will partially divert overland flow away from the affected properties.	Pre-Construction and construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and project drainage design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that flooding impacts at Underwood Road will be mitigated through the design of a larger than existing channel (XD02) through the cut and cover to account for additional flow from a diverted drainage line.</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
FD06	<p>The detailed design will exceed minimum clearance requirements.</p> <p>The longer spans of the new bridges will offset the increased hydraulic losses associated with their larger footprint and multiple bridges, when compared to the existing arrangement.</p> <p>Continuous walls will be provided between the abutments of the new bridges to provide a uniform waterway section.</p> <p>The eastbound cycleway bridge will be managed through provision of a waterway area consistent with that of the M4.</p>	Pre-Construction and construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and project structural design have been developed to address this REMM.</p> <p>The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that to minimise hydraulic losses associated with multiple bridge over the M4 Motorway, the downstream ramps and cycleway have been design to be part of the same structure as the M4East bridge, whilst the upstream off-ramp bridge will have a larger span as per this REMM.</p>
FD07	<p>Openings to the buildings will be located to prevent the ingress of floodwaters in a PMF event, providing a freeboard allowance greater than 0.5 metres freeboard to the 100 year ARI flood level.</p>	Pre-Construction and construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and project drainage design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that buildings have been set at or above the PMF level, in compliance with this REMM.</p>
FD08	<p>The bridge over Powells Creek will be designed to provide a minimum 0.5 m clearance between the underside of the bridge and the 100 year ARI flood level.</p> <p>The bridge abutment at Parramatta Road will be located to minimise impacts during a 100 year ARI event.</p>	Pre-Construction and Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and project structural design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies this bridge has been shifted away from the creek is now located outside of the 100 year ARI creek flood extent. In its new location the bridge has</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					more than 0.5m freeboard to the 100 year ARI local flood level.
FD09	A barrier wall and overland flow path will be provided along the eastern side of the on- and off-ramps to direct overland flow around the tunnel entry during a PMF event. The top of the barrier wall will be located a minimum 0.5 metres above the 100 year ARI flood level.	Pre-Construction and construction	CSJ	Open	Flood Mitigation Strategies have been developed and submitted to DP&E (refer to Annexure A, CoA B14 for further compliance details). The Flood Mitigation Strategies and project drainage design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that the top of this barrier has been set above the PMF level, in compliance with this REMM.
FD10	A grassed channel will be provided to divert overland flow from stormwater drainage line XD04 around the surface road works. The grassed channel will be sized to contain 100 year ARI flows within the project footprint and thus prevent an increase in the extent of inundation within residential properties in Sydney Street.	Pre-Construction and construction	CSJ	Open	Flood Mitigation Strategies have been developed and submitted to DP&E (refer to Annexure A, CoA B14 for further compliance details). The Flood Mitigation Strategies and project drainage design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that a combination of pipe drainage system and overland flow path have been provided to minimise flooding impacts from stormwater drainage line XD04.
FD11	Openings to the facility will be located to prevent the ingress of floodwater in a PMF event and to provide a freeboard greater than 0.5 metres to the 100 year ARI flood level.	Pre-Construction and construction	CSJ	Open	Flood Mitigation Strategies have been developed and submitted to DP&E (refer to Annexure A, CoA B14 for further compliance details). The Flood Mitigation Strategies and project building design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that the emergency ventilation building flood levels have been set at the PMF level.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
FD12	The size and layout of the overland flow path will be integrated with the layout of the water treatment facility.	Pre-Construction and Construction	CSJ	Open	Flood Mitigation Strategies have been developed and submitted to DP&E (refer to Annexure A, CoA B14 for further compliance details). The Flood Mitigation Strategies and project drainage design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that the water treatment plant at Cintra Park was relocated in response to CoA B46(e), towards the western side of the site. An overland flow path similar to the existing path will be reinstated post-construction.
FD13	A barrier wall will be provided along the eastern side of the tunnel dive structure to direct overland flow around the tunnel entry during a PMF event. The top of the barrier wall will be located a minimum 0.5 m above the 100 year ARI flood level.	Pre-Construction and Construction	CSJ	Open	Flood Mitigation Strategies have been developed and submitted to DP&E (refer to Annexure A, CoA B14 for further compliance details). The Flood Mitigation Strategies and project drainage design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that the top of this barrier has been set above the PMF level, in compliance with this REMM.
FD14	The diversion of stormwater drainage line XD09c and the overland flow path at Chandos Street will be designed to contain flows within the project footprint, preventing an increase in the extent of inundation within the adjacent commercial property. Refinement of the pit and pipe drainage system design will be undertaken to prevent an increases in flows and flood levels along Parramatta Road and Bland Street.	Pre-Construction and Construction	CSJ	Open	Flood Mitigation Strategies have been developed and submitted to DP&E (refer to Annexure A, CoA B14 for further compliance details). The Flood Mitigation Strategies and project drainage design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that the design of XD09c has developed to divert the majority of flows to Chandos Street rather than Bland Street. An onsite detention basin will be provided to minimise flood impacts.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
FD15	<p>Road level and barriers at the entry to the tunnel portals will prevent ingress of floodwaters during a PMF event, providing a freeboard allowance greater than 0.5 metres freeboard to the peak 100 year ARI flood level.</p> <p>A drainage path will be provided to drain local catchment runoff from Allum Street around the tunnel dive structure during a PMF event.</p>	Pre-Construction and Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and project drainage design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that the road crest into the tunnel has been set just above the PMF level at the eastern tunnel portal. At the western tunnel portal an onsite detention basin and overland flow path in combination with barriers and road levels prevent flood waters from entering the tunnel in events up to the PMF.</p>
FD16	<p>A new drainage structure near XD11 will be constructed to mitigate the impacts of flooding on existing residential development located to the east (upstream) of Wattle Street.</p>	Pre-Construction and Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and project drainage design have been developed to address this REMM. The Flood Mitigation Strategy – Project Wide – Permanent Works identifies that the existing Sydney Water box culvert and drainage pipe will be replaced with a new twin box culvert, in compliance with this REMM.</p>
FD17	<p>Temporary bridge works and access roads will be staged and removed as soon as practical after serving their primary purpose.</p>	Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies, temporary works design and construction planning have been developed to address this REMM.</p> <p>Temporary access roads and temporary bridge works are staged to minimise impacts on road network performance, with flooding impacts considered during the design of each stage. Temporary works are removed as soon as</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					practical to allow for future stages of works to commence.
FD18	Measures will be implemented and maintained to intercept concentrated flow and divert it in a controlled manner to prevent scour of disturbed surfaces and transportation of sediment and construction materials.	Construction	CSJ	Open	Flood Mitigation Strategies have been developed and submitted to DP&E (refer to Annexure A, CoA B14 for further compliance details). The Flood Mitigation Strategies and temporary works design have been developed to address this REMM. The potential for scour has been assessed within each temporary works Flood Mitigation Strategy, with each strategy identifying that no additional scour measures are necessary as a result of this assessment.
FD19	The resulting increase in peak flood levels will be managed by providing a setback (up to about 8.0 m) between the edge of the existing concrete channel and the construction site.	Construction	CSJ	Open	Flood Mitigation Strategies have been developed and submitted to DP&E (refer to Annexure A, CoA B14 for further compliance details). The Flood Mitigation Strategies and temporary works design have been developed to address this REMM. The Flood Mitigation Strategy – Zone 20 – Temporary Works has assessed flooding impacts associated with the Homebush Bay Drive construction site and found that there would be no adverse flood impacts to adjoining properties as a result of the temporary access work as the works are generally located outside the 100 year ARI flood extents and no additional runoff is expected to be diverted to this site from surrounding works.
FD20	The width of the flow path where it crosses the cut-and-cover section of tunnel will be increased and ground levels lowered on the eastern side of Underwood Street. The overland flow path will be maintained so as not to increase depths of inundation in adjacent residential development.	Construction	CSJ	Open	Flood Mitigation Strategies have been developed and submitted to DP&E (refer to Annexure A, CoA B14 for further compliance details). The Flood Mitigation Strategies and temporary works design have been developed to address this REMM. The Flood Mitigation Strategy – Zone 20 – Temporary Works identifies the following mitigation measures to minimise the risk of



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>flooding at the Underwood Road civil site, associated with the cut and cover structure:</p> <ul style="list-style-type: none"> <li>The access road from Underwood Road is to be built as close to existing ground level as possible to allow overland flows to drain to the existing channel and on to Ismay Avenue,</li> <li>The temporary bridge deck will be built with minimal freeboard between the top of the channel and the underside of the bridge deck to minimise the extent of the build-up on the haul road approaches to the bridge, and</li> <li>Thrie-beam barriers or similar are proposed along the bridge instead of solid concrete safety barriers to minimise flow path blockage.</li> </ul>
FD21	The location and dimensions of the temporary access crossings across the Powells Creek channel will be managed. Temporary flood protection measures at the allotment level will be implemented as required.	Construction	CSJ	Open	This REMM is no longer applicable – CSJ no longer proposed to cross Powells Creek with a temporary access crossing.
FD22	The impacts on depths of overland flow in existing residential development are localised and will be addressed by providing an overland flow path through the site or around its perimeter to control flows that exceed the capacity of stormwater drainage line XD04.	Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and temporary works design have been developed to address this REMM. The Flood Mitigation Strategy – Zone 30 – Temporary Works identifies the following mitigation measures to provide an overland flow path through the Concord Road tunnel site:</p> <ul style="list-style-type: none"> <li>Provide a pit and pipe system and overland flow path through the site which is sized to capture flows similar to existing,</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<ul style="list-style-type: none"> <li>• Provide openings with flaps in the noise wall along Sydney Street and south of Alexandra Street to allow overland flows to ensure the site, and</li> <li>• Shaping of the hardstand area between the acoustic shed and facility on the eastern boundary with an inverted crown to provide a flow path.</li> </ul>
FD23	An overland flow path through the site will be provided.	Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and temporary works design have been developed to address this REMM. The Flood Mitigation Strategy – Zone 30 – Temporary Works identifies the following mitigation measures to provide an overland flow path through the Cintra Park tunnel site:</p> <ul style="list-style-type: none"> <li>• Maintain an overland flow path near the eastern boundary similar to existing conditions, with the tree-lined overland flowpath between the noise wall and the eastern property boundary maintained, and</li> <li>• Installation of a concrete lined V-drain is proposed along the western side of the noise wall.</li> </ul>
FD24	Bunding will be provided to direct overland flow along the haul road and around the Sydney Water pump station.	Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and temporary works design have been developed to address this REMM. The Flood Mitigation Strategy – Zone 40 – Temporary Works identifies that bunding is</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					not required as the haul road is not estimated to cause flood impacts at the pump station
FD25	<p>An overland flow path will be provided along Parramatta Road between Chandos Street and Bland Street to control flows that exceed the capacity of stormwater drainage line XD09c. Subject to land access, the detention tank at Bland Street and upgrades to the drainage line along Parramatta Road and Bland Street will be built as part of enabling works or temporary storage on site C10 will be considered as an alternative measure. Temporary flood protection measures will be implemented at the allotment level, as required, to address residual flood impacts.</p>	Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and drainage design have been developed to address this REMM. The Flood Mitigation Strategy – Zone 50 – Temporary Works identifies the following mitigation measures to provide an overland flow path through the Parramatta Road civil site, between Chandos Street and Bland Street:</p> <ul style="list-style-type: none"> <li>• Location of the site offices and other amenities in a location remote from any major overland flow paths,</li> <li>• Provision of a minimum 25 m section without solid concrete safety barriers along the westbound carriageway of Parramatta Road near Chandos Street to maintain overland flow paths.</li> <li>• Inclusion of flaps along a minimum 25 m section in the temporary hoarding along Parramatta Road near Chandos Street, and</li> <li>• Provision of a minimum 1 m gap between the kerb and edge of barrier on Chandos Street to maintain overland flow paths</li> </ul> <p>The permanent stormwater design for this zone no longer includes a detention basin at Bland Street.</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
FD26	The flood standard adopted at each tunnel entry during construction will take account of the duration of construction, the magnitude of inflows and the potential risks to personal safety and the project works.	Construction	CSJ	Open	<p>Flood Mitigation Strategies have been developed and submitted to DP&amp;E (refer to Annexure A, CoA B14 for further compliance details).</p> <p>The Flood Mitigation Strategies and drainage design have been developed to address this REMM. The temporary works Flood Mitigation Strategies note that:</p> <ul style="list-style-type: none"> <li>The tunnel sites at Northcote Street and Underwood Road are located outside the 100 year ARI flood extent, and</li> <li>The top of the capping beams at the Concord Road and Cintra Park tunnel sites are set at PMF level to prevent flood water from entering the tunnel decline.</li> </ul>
GW1	Pre-construction surface and groundwater monitoring will continue on a monthly basis to establish baseline conditions, or as otherwise agreed with the relevant agency.	Pre-Construction	RMS	Open	This REMM is addressed in the approved CLMP Section 4.1, CL8. Pre-construction surface and groundwater monitoring continued on a monthly basis during the pre-construction phase to establish baseline conditions.
GW2	<p>Prior to construction, a groundwater monitoring plan for the construction and operational phases of the project will be developed in consultation with the Department of Primary Industries – Water and the NSW Environment Protection Authority. This may include, but not be limited to:</p> <ul style="list-style-type: none"> <li>Tunnel inflow rates and chemistry compared with the predicted inflows</li> <li>Mineral precipitation relating to blockage of inflow collection, reticulation and treatment systems.</li> </ul>	Pre-Construction	CSJ/WCXM4 Co	Complete	<p>The Water Quality Monitoring Program (WQMP) (M4E-LSJ-PR-00-000-001-041) which has been prepared to comply with CoA B18 and was approved by DP&amp;E on 6 May 2016.</p> <p>This REMM is addressed in the approved SWMP Annexure A - Section 6.3</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
GW3	<p>Following further groundwater monitoring, the potential for clogging of groundwater drainage and collection systems will be considered during detailed design. Where ferrous (soluble) iron concentrations remain high, consideration will be given to treating captured groundwater prior to discharge for:</p> <ul style="list-style-type: none"> <li>• Aeration to reduce dissolved iron and manganese</li> <li>• Settlement to remove precipitated iron and sediments.</li> </ul>	Pre-Construction	CSJ	Open	<p>The Water Quality Monitoring Program (WQMP) (M4E-LSJ-PR-00-000-001-041) which has been prepared to comply with CoA B18 and was approved by DP&amp;E on 6 May 2016. This REMM is addressed in the approved SWMP Annexure A - Section 6.3.1</p> <p>The project drainage detailed design considers this REMM, as does the Durability Design Report. This report identifies that chemical precipitates and iron bacteria slimes associated with groundwater inflows can clog strip drains, therefore regular maintenance via cleanouts and flushing pipes is required. Where strip drains are installed in the tunnel, a routine maintenance and cleaning program will be implemented required to sustain the proper functioning and durability of the system.</p>
GW4	<p>The location of the groundwater discharge to St Lukes Park Canal will be confirmed following further surface water monitoring. Untreated saline groundwater will be discharged to a location that is influenced by existing saline conditions. If a suitable discharge location is unable to be identified, saline groundwater will be treated prior to discharge.</p>	Pre-Construction	CSJ	Open	<p>The Water Quality Monitoring Program (WQMP) (M4E-LSJ-PR-00-000-001-041) which has been prepared to comply with CoA B18 and was approved by DP&amp;E on 6 May 2016.</p> <p>This REMM is addressed in the approved SWMP Annexure A, - Section 6.3 and 7.3.</p> <p>Surface water monitoring of St Lukes Park Canal has been completed since June 2015. A construction discharge location has been approved as part of the project Environment Protection Licence to St Lukes Canal, with discharge to this location commencing during the reporting period.</p>
GW5	<p>Management of licensed bores identified as being at risk of drawdown will be managed in accordance with relevant guidelines, and</p>	Pre-Construction, construction	CSJ	Open	<p>The Water Quality Monitoring Program (WQMP) (M4E-LSJ-PR-00-000-001-041) which has been prepared to comply with CoA B18 and was approved by DP&amp;E on 6 May 2016. This REMM is</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	mitigation measures that will be implemented may include, but not be limited to: <ul style="list-style-type: none"> <li>• Inspect and confirm existing status of the licensed bores prior to tunnel excavation and, if active, confirm their current purpose</li> <li>• Monitoring water chemistry and water levels pre- construction, construction and during operation</li> <li>• Appropriate make good trigger levels and make good requirements for impacted bores</li> <li>• Where appropriate, provide compensatory measures for adverse impacts.</li> </ul>	and operation			addressed in the approved SWMP Annexure A – Section 7.3 The WQMP had not identified any licensed bores at risk of drawdown. This will continue to be monitored during construction.
GW6	Further assessments will be undertaken during detailed design to determine the level of potential impact on structures and to identify feasible and reasonable mitigation and management measures required to minimise potential ground movement impacts and make good identified impacts.	Pre-Construction	CSJ	Open	A Geotechnical model, including settlement criteria, is required under CoA D6, D8 and D9. The requirements of these CoA are addressed in the following documentation, which address this REMM: <ul style="list-style-type: none"> <li>• The Geotechnical Interpretative Report (00-120-051) details the M4E geotechnical model, which includes all geological conditions and structures identified along the alignment. This report was issued FD on 23 March 2016,</li> <li>• The Hydrogeological Model Report (00-120-052) details the groundwater conditions and features identified along the alignment. This report was issued FD on 23 March 2016,</li> <li>• Construction staging is captured in individual sites Work Pack’s,</li> <li>• Predicted settlements, ground movement, stress redistribution and horizontal strain</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence															
					<p>profiles caused by excavation and tunnelling have been assessed based on inputs from the Geotechnical Interpretative Report, the Hydrogeological Model Report and individual tunnel/civil Design Lots. This assessment is documented in the Settlement Analysis Report (00-120-058), which was issued as FD on 8 June 2016, and</p> <ul style="list-style-type: none"> <li>Surface and sub-surface infrastructure which may be impacted by the SSI, including specific attributes of those structures is addressed in the Monitoring and Infrastructure Protection Report (00-120-059). This report was issued as FD on 8 July 2016.</li> </ul>															
GW7	Prior to the commencement of tunnelling works, existing condition surveys will be undertaken on properties and structures within the project corridor (the zone on the surface equal to 50 m from the outer edge of the tunnels) and within 50 m of surface works.	Pre-Construction	CSJ	Open	<p>A Construction Noise and Vibration Management Plan (NVMP) (M4E-ES-PLN-PWD-00241) has been prepared to comply with CoA D57(b) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in the approved NVMP at Section 7.1, NVM1.</p> <p>A summary of surveys undertaken to date are in the table below.</p> <table border="1"> <thead> <tr> <th></th> <th>Contacted</th> <th>Responded</th> <th>PCS survey completed</th> <th>PCS report sent</th> </tr> </thead> <tbody> <tr> <td>Residential</td> <td>2614</td> <td>1328</td> <td>1269</td> <td>1206</td> </tr> <tr> <td>Commercial</td> <td>188</td> <td>76</td> <td>68</td> <td>68</td> </tr> </tbody> </table>		Contacted	Responded	PCS survey completed	PCS report sent	Residential	2614	1328	1269	1206	Commercial	188	76	68	68
	Contacted	Responded	PCS survey completed	PCS report sent																
Residential	2614	1328	1269	1206																
Commercial	188	76	68	68																
NAH1	Where practical, heritage specialists (built and landscape heritage and historical archaeology) and urban designers will provide input into the detailed design and documentation phase to assist in identifying	Pre-Construction	CSJ	Open	<p>This REMM will be addressed in the UDLP and by the Urban Design Review Panel as required by CoA B45 and B46. Refer to CoA B45 and B46,</p>															



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	opportunities to enhance the conservation options for heritage items and archaeological sites and ensure adverse impacts are avoided or minimised. This will include, but not be limited to, the alignment and design of noise barriers to avoid or minimise impacts on heritage items. (moderately effective).				Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM.
NAH2	New structures will be of a high quality, sympathetic design to minimise visual impacts on the setting of heritage buildings and landscapes taking into account a range of design considerations. (somewhat effective).	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM.
NAH3	As part of the construction heritage management plan, an overarching historical archaeological research design (HARD) will be prepared prior to commencement of works within any heritage archaeological management unit (HAMU). The HARD will describe clear significance thresholds for historical archaeological items, as may be uncovered during the works. The significance threshold assessment will underpin if and, if so, where test excavation, monitoring, and/or salvage excavation should occur in relation to the project works and timing.  The criteria for the significance thresholds will be in the form of a checklist prepared in line with the NSW Heritage Threshold System, that is, items will be assigned with no value, local value or State value.	Pre-Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. The HMP includes the approved HARD required by CoA D35, as required by this REMM. This REMM is addressed in the HMP Annexure B, Section 6 - H10, and the HARD.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	Post-excavation reporting, including artefact analysis and additional historical research (where necessary), will be required for any historical archaeological investigations undertaken (moderately effective).				
NAH4	A construction heritage management plan would be prepared prior to construction detailing how construction impacts on heritage will be minimised and managed including training and induction processes for construction personnel. Inductions are to cover built heritage, landscape and historical archaeological sites and their management, and provide heritage guidance on how to avoid/manage impacts. The induction would be prepared in consultation with a suitably qualified heritage specialist and historical archaeologist (highly effective).	Pre-Construction	CSJ	Complete	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP, HMP Section 1.4, Section 6 - H2.</p> <p>The project induction provides an overview of impacts upon heritage and mitigation measures to minimise this impact including:</p> <ul style="list-style-type: none"> <li>• The use of no-go area flagging and signage to delineate protected areas of heritage,</li> <li>• Process to be followed in the event access must be gained to a no-go area, and</li> <li>• The Unexpected Heritage Finds protocol.</li> </ul>
NAH5	Impacts to built heritage, heritage landscapes and historical archaeological sites, will to the greatest extent practicable, be avoided and minimised. Where impacts are unavoidable, works shall be undertaken in accordance with the strategy outlined in the construction heritage management plan (moderately effective).	Pre-Construction and Construction	CSJ	Open	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP Section 6 - H1.</p> <p>During the reporting period a pit of brick kiln waste was found within the Underwood Road tunnel site during investigative works. In accordance with the Archaeological Relics Management Plan, this area was re-instated with its original fill, and covered with geofabric and clean fill to protect the feature from damage.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
NAH6	<p>The Roads and Maritime <i>Standard Management Procedure— Unexpected Heritage Items</i> (2015) will be applied in the event any unanticipated archaeological remains are discovered during the project. The procedure covers identification of heritage items and archaeological sites; recording and reporting on items including guidelines for photography; key environmental contacts; and procedural information for example on uncovering human remains (moderately effective).</p> <p>If human remains were discovered during any phase of works associated with the project, works will cease immediately in the surrounding area. The findings will be reported immediately to the NSW Coroner’s Office and/or the NSW Police (moderately effective).</p>	Construction	CSJ	Open	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP Section 6 - H5, H6.</p> <p>During the reporting period for this QCCR, CSJ have uncovered five potential heritage finds, with the Unexpected Heritage Finds Procedure (Annexure C to the DP&amp;E approved HMP (M4E-ES-PLN-PWD-00238 – 24 March 2016)) implemented.</p> <p>Of these finds three were identified as being of local significance (refer to Annexure A, CoA D38 for further compliance details.).</p>
NAH7	<p>An Interpretation Plan will be developed and implemented to identify and interpret the key heritage values and stories of certain areas affected by the project, in accordance with the NSW Heritage Division guidelines (Interpretation Plan). The Interpretation Plan will focus on the affected sections of heritage conservation area contributory streetscapes and houses where a major impact is predicted in the Powell’s Estate heritage conservation area, Thornleigh House gates and driveway, Longbottom Stockade (Concord Oval) and the Haberfield Conservation Area, and may include interpretive initiatives in new public reserves and walkways. Affected sections</p>	Pre-Construction	CSJ	Open	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP Section 6 - H11.</p> <p>The project have commenced drafting a Heritage Interpretation Plan for the project, in accordance with CoA B32, which will be developed in parallel with the Urban Design and Landscape Plan.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	will be selected based on the advice of a qualified heritage consultant, and identified in the Construction Heritage Management Plan. Artefacts and archaeological remains will be considered for their interpretative value when identified or recovered by excavation (somewhat effective).				
NAH8	Photographic recording will be undertaken of listed, and contributory heritage items and affected sections of the heritage conservation areas – contributory streetscapes and houses where a major adverse impact will be caused by the project, as identified in the Construction Heritage Management Plan in the Powell’s Estate Conservation Area, Thornleigh House gates and driveway, and the Haberfield Conservation Area.-During demolition, where practical and as advised by a qualified heritage consultant, recycle elements of heritage fabric from listed heritage items and affected sections of the heritage conservation areas – contributory streetscapes and houses where a major adverse impact will be caused by the project, as identified in the Construction Heritage Management Plan in the Powell’s Estate Conservation Area, Thornleigh House gates and driveway, and the Haberfield Conservation Area. The recording methodology will be generally in accordance with the NSW Heritage Office guidelines <i>Photographic Recording of Heritage Items Using Film or Digital Capture</i> (2006b), but the detail of the recording required will be determined by the	Pre-Construction and Construction	CSJ	Open	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24March 2016. This REMM is addressed in the HMP Section 6 - H12, H13.</p> <p>Photographic recording of properties commenced in April 2016, and was completed in June 2016.</p> <p>Photographic recording of streetscapes commenced in March 2016 and was completed in June 2016.</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	significance of the items/groups/streetscapes (least effective).				
NAH9	During demolition, where practical and as advised by a qualified heritage consultant, recycle elements of heritage fabric from listed heritage items and affected sections of the heritage conservation areas – contributory streetscapes and houses where a major adverse impact will be caused by the project, as identified in the Construction Heritage Management Plan in the Powell’s Estate Conservation Area, Thornleigh House gates and driveway, and the Haberfield Conservation Area-(least effective).	Construction	CSJ	Open	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the Section 6 - H17. The requirements for salvage of heritage items are outlined in the Heritage Management Procedure. Requirements will be determined based on inspections undertaken by the project heritage specialist (Section 7.1 of the HMP).</p>
NAH10	Where required by the historical archaeological research design and prior to the commencement of pre-construction and/or construction activities that will impact historical archaeological sites identified in the EIS, an archaeological excavation program in accordance with the Heritage Council of NSW <i>Archaeological Assessment Guidelines</i> (1996). This work will be undertaken by an appropriately qualified archaeological consultant (moderately effective).	Pre-Construction and construction	CSJ	Open	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP Section 6 - H10, Annexure B.</p> <p>During the reporting period CSJ have undertaken excavation works in the vicinity of archaeological sites in the following locations, with the Excavation Director present:</p> <ul style="list-style-type: none"> <li>Gipps Street (HAMU8), Forster Street, Loftus Street, Sydney Street (HAMU4 &amp; 5), Edward Street, Concord Lane (HAMU7) and Carrington Street (HAMU7), Concord</li> <li>Short Street East (HAMU3), Ismay Avenue (HAMU3) and Powell Street (HAMU3), Homebush,</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<ul style="list-style-type: none"> <li>• Within the Underwood Road tunnel site (HAMU3),</li> <li>• Parramatta Road (east and west of Wattle Street), Haberfield (HAMU9 &amp; 10), and</li> <li>• Reg Coady Reserve, Haberfield (HAMU10).</li> </ul>
NAH11	Mitigation methodologies for the management of impacts on known and potential significant historical archaeological resources will be further developed at the detailed design stage, once key ground disturbance impacts have been finalised (in terms of exact depth, width, extent and type of impact). This would ensure that the archaeological mitigation strategies are streamlined and reduced in scope to target the key areas of unavoidable impact on significant archaeological resources (moderately effective).	Pre-Construction	CSJ	Open	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP by the HARD included in Annexure B.</p>
NAH 12	Archaeological investigations (testing, monitoring and/or salvage) consistent with the HARD, will be undertaken in accordance with standards and processes stipulated by the NSW Heritage Division, Office of Environment and Heritage with respect to the archaeological resource (moderately effective).	Pre-Construction and Construction	CSJ	Open	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP Section 6 - H10.</p> <p>During the reporting period CSJ have undertaken investigative excavation works in the vicinity of archaeological sites in the following locations, with the Excavation Director present:</p> <ul style="list-style-type: none"> <li>• Gipps Street (HAMU8), Forster Street, Loftus Street, Sydney Street (HAMU4 &amp; 5), Edward Street, Concord Lane (HAMU7) and Carrington Street (HAMU7), Concord</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<ul style="list-style-type: none"> <li>• Short Street East (HAMU3), Ismay Avenue (HAMU3) and Powell Street (HAMU3), Homebush,</li> <li>• Within the Underwood Road tunnel site (HAMU3),</li> <li>• Parramatta Road (east and west of Wattle Street), Haberfield (HAMU9 &amp; 10), and</li> <li>• Reg Coady Reserve, Haberfield (HAMU10).</li> </ul>
NAH13	The construction heritage management plan would include detailed procedures/ strategies for the conservation and curation of any historical artefacts recovered during works (moderately effective).	Pre-Construction and Construction	CSJ	Open	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP Annexure A, Annexure B, Annexure C.</p> <p>During the reporting period, CSJ uncovered eight potential heritage finds, with three of these finds identified as being of local significance:</p> <ul style="list-style-type: none"> <li>• Telford Road within Concord and Homebush found during utilities works,</li> <li>• A brick pit at Underwood Road tunnel site (C3b), and</li> <li>• Cisterns at the Parramatta Road civil site (C10).</li> </ul> <p>In each of these instances the NSW Heritage Council were notified of the find and an Archaeological Relics Management Plan was developed and provided to the Heritage Council. Through the notification process, CSJ advised the Heritage Council of the proposed mitigation measures and process to manage the find. With</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					Heritage Council approval the works re-commenced.
NAH14	<p>In the event that historical archaeological relics of State significance are identified (eg HAMU 8), they will be managed in accordance with the following measures:</p> <ul style="list-style-type: none"> <li>• An excavation director who meets the NSW Heritage Branch requirements for directing State significant archaeological investigations must monitor the works</li> <li>• In situ retention of the archaeological resource may be required, unless it is highly disturbed and/or of a fragmentary nature – or if the impacts are assessed by the excavation director to be minor in nature</li> <li>• A work method statement or historical archaeological research design will be prepared by a qualified historical archaeologist in accordance with NSW Heritage Division requirements, prior to the commencement of works. This will outline a methodology for the investigation, salvage and/or conservation of archaeological resources</li> <li>• Where required, an archaeological excavation program will be implemented in accordance with the Heritage Council of NSW <i>Archaeological Assessments</i></li> </ul>	Construction	CSJ	Not yet triggered	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP Section 6 - H5, Refer also to Annexure B and Annexure C.</p> <p>During the reporting period no relics of State significance were identified.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<p><i>Guidelines</i> (1996). This work will be undertaken by an appropriately qualified archaeological consultant</p> <ul style="list-style-type: none"> <li>• The NSW Heritage Division and Roads and Maritime must be notified when intact State significant relics are discovered</li> <li>• Public engagement such as media releases, public open days during the works program, and/or post-works heritage interpretation may be warranted</li> <li>• If relics are found, post-excavation reporting, artefact analysis and conservation of relics (moderately effective).</li> <li>• In the event that State significant historical archaeology remains are identified within Cintra Park (HAMU 8) rearrangement of elements within the site compound will be considered and other conservation measures applied as necessary. Ground works in the existing carpark north of Concord Oval would be avoided (highly effective).</li> </ul>				
NAH15	<p>In the event that historical archaeological relics of local significance are identified, they will be managed in accordance with the following measures:</p> <ul style="list-style-type: none"> <li>• A work method statement or heritage archaeological research design will</li> </ul>	Construction	CSJ	Open	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP Section 6 - H5. Refer also to Annexure B and Annexure C.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<p>be prepared by a qualified historical archaeologist in accordance with NSW Heritage Division requirements, prior to the commencement of works. The work method statement or Heritage Archaeological Research Design will outline a methodology for the investigation, monitoring and/or salvage of archaeological resources</p> <ul style="list-style-type: none"> <li>• Archaeological monitoring will be led by a suitably qualified Excavation Director for the works. Monitoring will be followed by open-area excavation as required. This will depend on the nature, extent and integrity of the archaeological resource to be impacted, and the level of impact proposed</li> <li>• Where required, an archaeological excavation program will be implemented in accordance with the Heritage Council of NSW <i>Archaeological Assessments Guidelines</i> (1996). This work will be undertaken by an appropriately qualified archaeological consultant</li> <li>• If unexpected State significant relics were to be discovered, such relics may need to be managed in accordance with State significant requirements as listed above. The Excavation Director should determine if the unexpected relics are likely to be reassessed as State significant, and then determine appropriate mitigation</li> </ul>				<p>During the reporting period for this QCCR, CSJ have uncovered eight potential heritage finds, with the Unexpected Heritage Finds Procedure (Annexure C to the DP&amp;E approved HMP (M4E-ES-PLN-PWD-00238 – 24 March 2016)) implemented.</p> <p>Of these finds three were identified as being of local significance (refer to Annexure A, CoA 38 for further compliance details)</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<ul style="list-style-type: none"> <li>The NSW Heritage Division and Roads and Maritime are to be notified if intact State significant relics are discovered</li> <li>Public engagement, such as heritage interpretation and/or public open days may be warranted, depending on the nature and significance of the archaeological resource</li> <li>If relics are found, post-excavation reporting, artefact analysis and conservation (moderately effective).</li> </ul>				
NAH16	Where feasible and reasonable, a vegetated buffer will be retained between the conservation area and the widened M4 off- ramps to Homebush Bay Drive (highly effective).	Pre-Construction and Construction	CSJ	Open	<p>This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.</p> <p>The approach undertaken by CSJ is consistent with the REMM, with some vegetation retained and general tree planting included in the urban design for this area. .</p>
NAH17	Where feasible, the size and form of the proposed distribution substation to be located near the corner of Sydney Street and Concord Road will be designed to be as recessive as possible and incorporate sensitive landscaping treatment to reduce permanent visual impacts on the remaining portion of Powell’s Estate Conservation Area (somewhat effective).	Pre-Construction and Construction	CSJ	Open	<p>This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.</p> <p>The approach undertaken by CSJ is consistent with the REMM.</p> <p>The location of the substation is set, based on the infrastructure located below, with the size driven by the equipment special requirements internally.</p> <p>CSJ are investigating the following to minimise the impact of the substation:</p> <ul style="list-style-type: none"> <li>a A cladding system, and</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					b Landscaping, where possible, to minimise the impact.
NAH18	The front garden and fence will be re-established on completion of construction works (highly effective).	Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the HMP Section 6 - H19, and the Concord Road Property Works design.
NAH19	A landscape buffer will be established between the house and the widened Concord Road (highly effective).	Pre-Construction and Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.  The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47. The UDLP has identified an opportunity to provide tree planting in this location, however it will be subject to consultation with the land owner and council.
NAH20	Subject to agreement with the landowner, the church grounds, entrance gates and boundary fence will be re-established along the new Concord Road boundary (moderately effective).	Pre-Construction and Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the HMP Section 6 - H19, and the Concord Road Property Works design.
NAH21	A photographic archival recording of the entrance gates with measured drawings will be undertaken before construction, to assist with their relocation. The sandstone cobble driveway will be included in the recording (moderately effective).	Pre-Construction and Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016.  This REMM is addressed in the HMP Section 6 - H12. Archival recording for the church was completed during the reporting period and included measured drawings and records of the sandstone cobble driveway.





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
NAH22	The condition of the church and tower and its vulnerability to construction vibration will be confirmed prior to works commencing, and appropriate strategies will be implemented to avoid or minimise impacts if required. This will include, as a minimum, vibration monitoring (highly effective).	Pre-Construction and Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016.  This REMM is addressed in the HMP Section 6 - H22, Section 7.1.  A condition survey of the church was completed on 24 March and 28 June 2016...
NAH23	Where feasible and reasonable, the detailed design and construction stages will seek to maximise the number of trees retained (highly effective).	Pre-Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.  The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47.  During the reporting period the following opportunity was identified to retain trees along the northern boundary of the site at Sydney Street by shifting the site hoarding.
NAH24	Significant trees in the vicinity of the project along Sydney Street and Edward Street will be protected during construction works, on the advice of a suitably qualified and experienced arborist (highly effective).	Pre-Construction and Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the HMP Section 6 - H4.  CSJ will avoid impacts to heritage-associated trees where feasible and reasonable through the design and construction phases.  A Heritage Tree Register (M4E-ES-REG-PWD-00748-01) has been established to track heritage trees that are retained through design/construction adjustments or that are required to be trimmed or removed. In instances where removal is required, opportunities for relocation will be considered.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					During the reporting period the Wattle Street civil site have proposed a realignment of their driveway and footpath which would avoid impacts to heritage street trees. Details of the replacement of any removed or damaged street trees will be addressed in the UDLP.
NAH25	New trees planted at the western end of Sydney Street will be brush box or a similar, sympathetic species (highly effective).	Pre-Construction and Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The approach undertaken by CSJ is consistent with the REMM and the requirements of CoA B47. The urban design includes Brush Box infill street tree planting at this location.
NAH26	If feasible, the Moreton Bay fig trees along the Loftus Street boundary of Concord Oval, within the car park, will be retained and protected during construction works, in accordance with the advice of a suitably qualified and experienced arborist (highly effective).	Pre-Construction and Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the HMP Section 6 - H24. The project has not completed any construction works which have resulted in the removal, harm or modification of any heritage listed fig tree adjacent to or within the confines of the area identified as Cintra Park, Concord or Concord Oval during the reporting period which this QCCR applies.
NAH27	The vents and motorway facilities would be sited as close as possible to Parramatta Road to minimise their intrusion into the conservation area. An orientation that is more consistent with the Haberfield built form and subdivision would also be investigated. Where feasible, the proposed ventilation outlet and motorway facilities will	Pre-Construction	CSJ	Open	The design of the Parramatta Road ventilation facility has been “squared up” to mirror the Bunnings opposite.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	be as recessive as feasible and reasonable to reduce permanent visual impacts on the Haberfield Conservation Area. They will be of high-quality design and materials (somewhat effective).				
NAH28	The urban design and landscape plan will include planting strategies for the impacted area of the Haberfield Heritage Conservation Area to guide the landscaping along the project, around the ventilation facility and motorway facilities and along streets. The planting strategies would be developed with a view to complementing the existing historic streetscape plantings where relevant, with particular focus on Martin Street, Walker Avenue and Northcote Streets (moderately effective).	Pre-Construction and Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.  The approach undertaken by CSJ is consistent with the REMM. The draft UDLP includes planting strategies within the Wattle Street Interchange Urban Design and Landscape Sub-Plan, including the provision of landscape buffer planting, maximising trees retained and planting new trees with similar sympathetic species with a minimum pot size of 75L.
NAH29	The photographic archival recording of the affected areas of the Haberfield Conservation Area will include the streetscapes affected by the demolition of individual buildings (least effective).	Pre-Construction and Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the HMP Section 6 - H13.  Photographic recording of properties commenced in April 2016, and was completed in June 2016.  Photographic recording of streetscapes commenced in March 2016 and was completed in June 2016.
NAH30	The urban design and landscape plan will ensure views to the front gates and landmark Moreton Bay figs within Yasmar's mature garden are not obscured (highly effective).	Pre-Construction and Construction	CSJ	Open	This REMM will be addressed in the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.  The approach undertaken by CSJ is consistent with the REMM. Views to Yasmar have been



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					maintained, with street tree planting has not included in the widened verge adjoining Yasmar to achieve this outcome.
NAH31	If required, the front entrance gates and mature trees along Yasmar's front (Parramatta Road) boundary will be protected during construction works (highly effective).	Pre-Construction and Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the HMP Section 6 - H29. During the reporting period construction works were not conducted in the vicinity of Yasmar.
NAH32	If impacted by construction works, the access way from Parramatta Road into Yasmar will be re-instated (highly effective).	Pre-Construction and Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the HMP Section 6 - H30. The approved project does not involve any works (establishment, ancillary or construction) that will impact the Yasmar Estate, which has been identified on Site Environment Plans as a heritage no-go zone to ensure no direct impacts on these items.
NAH33	Significant trees in the vicinity of the project will be protected during construction works (highly effective).	Pre-Construction and Construction	CSJ	Open	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the HMP Section 6 - H31. CSJ will avoid impacts to heritage-associated trees where feasible and reasonable through the design and construction phases. A Heritage Tree Register (M4E-ES-REG-PWD-00748-01) has been established to track heritage trees that are retained through design/construction adjustments or that are



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>required to be trimmed or removed. In instances where removal is required, opportunities for relocation will be considered.</p> <p>During the reporting period the Wattle Street civil site have proposed a realignment of their driveway and footpath which would avoid impacts to heritage street trees.</p> <p>Details of the replacement of any removed or damaged street trees will be addressed in the UDLP.</p>
NAH34	The fabric of the channel will be protected during construction works on the advice of a suitably qualified civil engineer (highly effective).	Pre-Construction and Construction	CSJ	Not yet triggered	<p>A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016.</p> <p>This REMM is addressed in the HMP Section 6 - H32.</p> <p>During the reporting period no construction works were conducted which could impact upon Iron Cove Canal.</p>
NAH35	An independent urban design review panel will be established for the detailed design phase to review the refinements made to the project as the design progresses and provide advice and recommendations in relation to the integration of built form, urban and landscape design and heritage aspects of the project, including the western and eastern ventilation facilities, tunnel portals, bridges, noise barriers and landscaping elements. An experienced, reputable and independent heritage specialist will also be included on the panel.	Pre-Construction and Construction	WCXM4 Co	Open	<p>WCXM4 Co has established an Urban Design Review Panel.</p> <p>The first meeting of the UDRP was held on 15 April 2016, with a subsequent meeting held on 7 June 2016.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
B1	A Construction Flora and Fauna Management Plan will be developed for the construction phase of the project to confirm potential impacts and provide details of biodiversity management measures and procedures to be undertaken during construction to minimise and manage impacts on biodiversity.	Pre-Construction	CSJ	Complete	A Flora and Fauna Management Plan (FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the FFMP.
B2	The project footprint will be clearly delineated to minimise impacts on adjacent vegetation.	Construction	CSJ	Open	A Flora and Fauna Management Plan (FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the FFMP Section 5 FF13.
B3	Investigate opportunities to retain perimeter plantings where feasible at construction ancillary facilities at Cintra Park and Powells Creek.	Construction	CSJ	Complete	A Flora and Fauna Management Plan (FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the FFMP Section 5 FF9. Vegetation has been retained along the eastern and northern boundaries of the Cintra Park tunnel site (C6) and the western boundary of the Powells Creek civil site (C4).
B4	A pre-clearing survey will be carried out to identify any habitat trees or other features that require the presence of an appropriately qualified fauna handler during clearing.	Construction	CSJ	Open	A Flora and Fauna Management Plan (FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the FFMP Section 5 FF10. Pre-clearing surveys have been completed, with this requirement included in the Hold Point process for the project.
B5	An appropriately qualified fauna handler will be present during removal of habitat trees	Construction	CSJ	Open	A Flora and Fauna Management Plan (FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	identified during pre-clearing surveys to guide clearing activities and undertake rescue and relocation of fauna.				comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the FFMP Section 5 FF25. The project has engaged a qualified fauna handler to be present onsite during the removal of habitat trees identified in the pre-clearing surveys.
B6	Pre-construction surveys will be undertaken prior to commencing works in the vicinity of potential sites for hibernating or roosting bats. A bat management plan will be prepared if hibernating bats are identified.	Construction	CSJ	Open	A Flora and Fauna Management Plan (FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the FFMP Section 5 FF26. During the reporting period hibernating bats were not identified.
B7	Landscaping should incorporate planting of Grey-headed Flying-fox feed trees where feasible.	Construction	CSJ	Open	A Flora and Fauna Management Plan FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the FFMP Section 5 FF31 and the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP. The UDLP includes planting Grey-headed Flying-fox feed trees, including Spotted Gums ( <i>Corymbia maculata</i> ) within the Homebush Bay Drive interchange, Wattle Street interchange and Parramatta Road interchange.
B8	Weed and pathogen management and control will be undertaken in accordance with the <i>Biodiversity Guidelines</i> (Roads and Traffic Authority (RTA) 2011).	Construction	CSJ	Open	A Flora and Fauna Management Plan (FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the FFMP Section 5 FF33.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>During the reporting period the project ecologist identified a process for the removal of weeds which reduced the risk of weed spread. Noxious weed adjacent to Bill Boyce Reserve were also identified and removed during the reporting period.</p> <p>Weekly environmental inspections have been completed during reporting period covered by this QCCR, to monitor compliance with this REMM.</p>
B9	The water quality basin at Saleyards Creek will be designed to minimise impacts on the creek corridor and the setback area along this boundary should be appropriately landscaped.	Pre-Construction and Construction	CSJ	Open	<p>A Flora and Fauna Management Plan (FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016. This REMM is addressed in the FFMP Section 5 FF6 and the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.</p> <p>The UDLP includes landscaping for the setback area between the operational water quality basin and Saleyards Creek, including massed planting that would include grasses, shrubs and vines and accent planting.</p>
B10	At the completion of construction, complementary landscaping using locally endemic species will be undertaken in areas of construction ancillary facilities abutting creeks, canals and open space areas, where feasible.	Post Construction	CSJ	Not yet triggered	<p>A Flora and Fauna Management Plan FFMP) (M4E-ES-PLN-PWD-00237) has been prepared to comply with CoA D57 (c) and was approved by DP&amp;E on 24 March 2016. This REMM is addressed in the FFMP Section 5 FF30 and the UDLP as required by CoA B45 and B46. Refer to CoA B45 and B46, Annexure A for an update on the compliance of the UDLP.</p>
OpB1	Weed management and control will be undertaken in accordance with the <i>Biodiversity Guidelines</i> (RTA 2011).	Operation	WCXM4 Co	Open	<p>An Operational Environmental Management Plan (OMP) will be prepared to comply with CoA E26 (h). This will include details regarding the</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					operational requirements for the project, including this measure.
GHG1	Prepare an Energy Efficiency and GHG Emissions Strategy for the project.	Detailed Design	CSJ	Open	A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is addressed in the Delivery Phase Sustainability Plan (DPSP) Annexure C Energy Efficiency Greenhouse Gas Strategy (EEGGES) Sub-Plan
GHG2	Undertake an updated GHG assessment (Scope 1 and Scope 2) based on detailed design.	Detailed Design	CSJ	Open	A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is addressed in the DPSP Section 5.4, Annexure C Energy Efficiency Greenhouse Gas Strategy (EEGGES) Sub-Plan
GHG3	The emissions intensity of significant construction materials specified in the design of the project will be assessed and, where feasible and in compliance with technical specifications, purchasing power would be used to drive the procurement and use of low emission construction materials.	Detailed Design	CSJ	Open	A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is addressed in the Section 5.5 of the DPSP.
GHG4	Where feasible, recycled content road construction materials such as recycled aggregates in road pavement and surfacing, or similar, will be used.	Detailed Design	CSJ	Open	A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is addressed in the Section 5.5 of the DPSP. Recycled content (recycled DGB) has been identified for use in temporary road construction across the project.
GHG5	The fuel efficiency of construction plant and equipment will be assessed before selection and, where feasible and reasonable,	Pre-construction	CSJ	Open	A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	equipment with the highest fuel efficiency or equipment that uses lower GHG intensive fuel such as biofuels (eg biodiesel, ethanol) will be used.	and Construction			addressed in the Section 4.2.2 of the Energy Efficiency Greenhouse Gas Strategy. This requirement has been included in the Subcontractor Pack for applicable subcontractors.
GHG6	Project planning will be undertaken to ensure that the site vehicle movements and construction activities are efficient, to avoid double handling of materials and unnecessary fuel use where possible.	Detailed Design	CSJ	Open	The Project Construction Traffic and Access Management Plan (M4E-ES-PLN-PWD-00243) has been prepared to meet CoA D57(a) and was lodged with DP&E for approval on 21 March 2016. This REMM is addressed in the TAMP Table 5, Annexure E, Annexure F. Site planning has considered the placement and location of any materials generated and stored onsite to ensure they are not moved around but maintained in one location from generation to load up for offsite disposal (stockpiles, storage containers, rebar, etc.) or until a time when reused onsite (final placement).
GHG7	Locally produced goods and services will be procured where feasible and where cost effective and meeting the project design and specifications, to reduce transport fuel emissions.	Detailed Design and Construction	CSJ	Open	A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is addressed in the 5.2.4 of the DPSP. Examples of locally sourced goods include local plumbing supplies and noise wall materials.
GHG8	A minimum of six per cent of the project's estimated electricity consumption will be sourced from a renewable energy source or GreenPower, where reasonable and feasible.	Detailed Design and Construction	CSJ	Open	A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is addressed in the DPSP, Annexure C Energy Efficiency Greenhouse Gas Strategy (EEGGES) Sub-Plan. This requirement has been included in CSJ's contracts with the project energy supplier.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
GHG9	Waste will be diverted from landfill, including diversion of spoil, construction and demolition waste, and commercial and industrial waste, where reasonable and feasible.	Detailed Design and Construction	CSJ	Open	<p>A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52.</p> <p>This REMM is addressed in the Section 5.8 of the DPSP.</p> <p>During the reporting period waste was diverted from landfill with: concrete reused in rock check dams, turbid water reused for dust suppression, cleared vegetation reused in mulch berms and as ground cover, and artificial turf and liner from the hockey pitch were reused at a local school and onsite.</p>
GHG10	The tunnel will be designed to minimise fuel consumed by vehicles using the road, for example through the provision of a vertical alignment that allows consistent vehicle speeds to be maintained.	Detailed Design	CSJ	Open	<p>A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is addressed in the Section 4 of the Energy Efficiency Greenhouse Gas Strategy.</p> <p>The project tunnel gradient has been designed to minimise fuel consumption.</p>
GHG11	A life cycle assessment will be undertaken as part of the detailed design in order to select mechanical and electrical systems with increased energy efficiencies, where reasonable and feasible, such as the tunnel ventilation system, tunnel lighting, water treatment systems and electronic toll and surveillance systems.	Detailed Design	CSJ	Open	<p>A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is addressed in the Section 4.2 of the Energy Efficiency Greenhouse Gas Strategy.</p> <p>Life cycle assessments are being used in the selection of mechanical and electrical systems in the procurement process.</p>
GHG12	Low carbon energy generation options will be investigated as part of the design process in order to reduce the demand on mains electricity and generate renewable energy onsite, where feasible.	Detailed Design	CSJ	Open	<p>A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is addressed in the Section 4.2.2 of the Energy Efficiency Greenhouse Gas Strategy.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					To date no options have been identified to generate renewable energy onsite.
GHG13	A portion of the project’s estimated electricity consumption will be sourced from a renewable energy source or GreenPower, where reasonable and feasible.	Detailed Design / Operation	RMS	Open	A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52 for the delivery phase. This REMM is addressed in the DPSP, Annexure C Energy Efficiency Greenhouse Gas Strategy (EEGGES) Sub-Plan.  An Operational Environmental Management Plan (OMP) will be prepared by the operating company to comply with CoA E26 (h). This will include details regarding the operational requirements for the project, including this measure.
AH1	If an Aboriginal object(s) is discovered during construction it will be managed in accordance with the standard management procedure, <i>Unexpected Archaeological Finds</i> (Roads and Maritime 2015a), which includes the following provisions: <ul style="list-style-type: none"> <li>• Relevant works in the vicinity of the object(s), with the potential to directly or indirectly impact on the object(s), will cease</li> <li>• The construction Environmental Representative, OEH and the Metropolitan Local Aboriginal Land Council will be notified of the discovery</li> <li>• A qualified archaeologist will be engaged to determine the nature, extent and scientific significance of the object(s)</li> <li>• Management recommendations will be developed in consultation</li> </ul>	Construction	CSJ	Not yet triggered	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the HMP Annexure C, Section 6 - H5.  During the reporting period no aboriginal objects were discovered.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	with the qualified archaeologist, OEH and the <ul style="list-style-type: none"> <li>Metropolitan Local Aboriginal Land Council.</li> </ul>				
AH2	If human remains are discovered during construction, the find will be managed in accordance with the standard management procedure, <i>Unexpected Archaeological Finds</i> (Roads and Maritime 2015a), which includes the following provisions: <ul style="list-style-type: none"> <li>Relevant works in the vicinity of the remains, with the potential to directly or indirectly impact on the remains, will cease</li> <li>The construction Environmental Representative, OEH and NSW Police will be notified of the discovery</li> <li>Directions from the NSW Police and/or OEH, as relevant, will be followed, depending on the nature of the remains and the outcome of forensic investigations.</li> </ul>	Construction	CSJ	Not yet triggered	A Heritage Management Plan (HMP) (M4E-ES-PLN-PWD-00238) has been prepared to comply with CoA D57 (c) and was approved by DP&E on 24 March 2016. This REMM is addressed in the HMP Annexure C, Section 6 - H6.  During the reporting period no human remains were discovered.
RW1	Wherever feasible and reasonable, construction material will be sourced from within the Sydney region.	Pre-Construction / Construction	CSJ	Open	A Waste and Resource Management Plan (WRMP) (M4E-ES-PLN-PWD-00244) has been prepared to comply with CoA B36 – 40 and D 46 and was approved by DP&E on 6 April 2016. This REMM is addressed in the approved WRMP and Delivery Phase Sustainability Plan.  Examples of locally produced goods include local plumbing supplies and noise wall materials.
RW2	Unnecessary resource consumption will be avoided by making realistic predictions on	Pre-Construction	CSJ	Open	A Waste and Resource Management Plan (WRMP) (M4E-ES-PLN-PWD-00244) has been



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	the required quantities of resources, such as construction materials.	/ Construction			prepared to comply with CoA B36 – 40 and D 46 and was approved by DP&E on 6 April 2016. This REMM is addressed in the approved WRMP and Delivery Phase Sustainability Plan.
RW3	Wastes will be managed and disposed of in accordance with relevant State legislation and government policies.	Construction	CSJ	Open	<p>A Waste and Resource Management Plan (WRMP) (M4E-ES-PLN-PWD-00244) has been prepared to comply with CoA B36 – 40 and D 46 and was approved by DP&amp;E on 6 April 2016. This REMM is addressed in the approved WRMP and Section 4, Section 5 W2, Annexure A. During the reporting period waste material has been lawfully disposed at the following locations:</p> <ul style="list-style-type: none"> <li>• ADI, St Mary's</li> <li>• Stockland Marsden Park</li> <li>• Schofields</li> <li>• Kemps Creek</li> <li>• Brandown Pty Ltd</li> <li>• SITA</li> <li>• Blacktown Waste Services</li> <li>• Dial a dump – Genesis</li> <li>• Builders Recycling Operations (Chester Hill)</li> <li>• Banksmeadow Recycling</li> <li>• Gow Street Recycling Centre</li> </ul>
RW4	A Waste Management Plan will be prepared for the construction phase of the project,	Construction	CSJ	Complete	A Waste and Resource Management Plan (WRMP) (M4E-ES-PLN-PWD-00244) has been



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	detailing appropriate procedures for waste management.				prepared to comply with CoA B36 – 40 and D 46 and was approved by DP&E on 6 April 2016.
RW5	<p>Wastes will be managed using the waste hierarchy principles of:</p> <ul style="list-style-type: none"> <li>Avoidance of unnecessary resource consumption to reduce the quantity of waste being generated.</li> <li>Recover of resources for reuse on site or off site for the same or similar use, without reprocessing</li> <li>Recover of resources through recycling and reprocessing so that waste can be processed into a similar non-waste product and reused</li> <li>Disposal of residual waste.</li> </ul>	Construction	CSJ	Open	<p>A Waste and Resource Management Plan (WRMP) (M4E-ES-PLN-PWD-00244) has been prepared to comply with CoA B36 – 40 and D 46 and was approved by DP&amp;E on 6 April 2016.</p> <p>This REMM is addressed in the approved WRMP Section 5 W1.</p> <p>During the reporting period the following wastes were reused on and offsite: concrete reused in rock check dams, turbid water reused for dust suppression, cleared vegetation reused in mulch berms and as ground cover, and artificial turf and liner from the hockey pitch were reused at a local school and onsite.</p>
RW6	Residual waste will be classified, handled and stored on site in accordance with the <i>Waste Classification Guidelines: Part 1 Classifying Waste</i> (EPA 2014) until collection by a contractor for disposal.	Construction	CSJ	Open	<p>A Waste and Resource Management Plan (WRMP) (M4E-ES-PLN-PWD-00244) has been prepared to comply with CoA B36 – 40 and D 46 and was approved by DP&amp;E on 6 April 2016.</p> <p>This REMM is addressed in the approved WRMP Section 4, Section 5 W2, Annexure A</p> <p>All wastes removed from the SSI and disposed offsite during the reporting period for this QCCR were assessed and classified in accordance with Waste Classification Guidelines, with:</p> <ul style="list-style-type: none"> <li>Approximately 18,000T General Solid Waste (spoil) removed, and</li> <li>Approximately 9000T of Virgin Excavated Natural Material (VENM) removed.</li> </ul>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
RW7	Off-site reuse of waste will comply with relevant EPA resource recovery exemptions and requirements.	Construction	CSJ	Open	<p>A Waste and Resource Management Plan (WRMP) (M4E-ES-PLN-PWD-00244) has been prepared to comply with CoA B36 – 40 and D 46 and was approved by DP&amp;E on 6 April 2016.</p> <p>This REMM is addressed in the approved WRMP Section 4.2, Annexure A.</p> <p>During the reporting period artificial turf and liner from the hockey pitch were reused at a local school in accordance with EPA resource recovery exemptions and requirements. A resource recovery exemption specific to the WestConnex M4 East project was also approved during the reporting period by the Environment Protection Authority.</p>
RW8	An asbestos survey will be undertaken of buildings to be demolished as part of the project. The survey will be conducted by a suitably qualified person.	Construction	CSJ	Open	<p>A Waste and Resource Management Plan (WRMP) (M4E-ES-PLN-PWD-00244) has been prepared to comply with CoA B36 – 40 and D 46 and was approved by DP&amp;E on 6 April 2016.</p> <p>This REMM is addressed in the approved WRMP and Demolition Plan, Section 5 W13.</p> <p>Under the provisions of the Demolition Management Plan and the contaminated Land Management Plan, hazardous materials assessments have been completed at the Underwood, Concord Road, Northcote Street, Wattle Street and Parramatta Road sites during the reporting period.</p> <p>Further inspections are due to be undertaken at the Wattle Street and Parramatta Road sites in July and August 2016.</p> <p>The Hazardous Materials Assessments include asbestos surveys of each property.</p>





Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
RW9	Asbestos handling and management will be undertaken in accordance with an Asbestos Management Plan and relevant State legislation, government policies and Australian Standards.	Construction	CSJ	Open	A Waste and Resource Management Plan (WRMP) (M4E-ES-PLN-PWD-00244) has been prepared to comply with CoA B36 – 40 and D 46 and was approved by DP&E on 6 April 2016. This REMM is addressed in the approved WRMP Section 5 W13 and Asbestos Management Plan.
RW10	A spoil management plan will be developed in accordance with the spoil management strategy (refer section 6.9.5 of the EIS) prior to the commencement of tunnelling works. The plan will identify spoil disposal site/s and describe the management of spoil on site and during off-site transport.	Construction	CSJ	Complete	The Project Spoil Management Plan (M4E-PM-PLN-PWD-00202) was approved by DP&E on 30 June 2016, prior to the commencement of tunnelling works which started on 16 July 2016.
OpRW1	Wastes will be manage and disposed of in accordance with relevant State legislation and government policies.	Operation	WCXM4 Co	Not yet triggered	Details regarding compliance with this REMM will be provided prior to operational phase.
OpRW2	Opportunities for reuse of wastewater will be considered including irrigation of landscaped areas within the project or local parks in preference to discharge to the local stormwater system.	Operation	WCXM4 Co	Not yet triggered	Details regarding compliance with this REMM will be provided prior to operational phase.
OpRW3	In order to reduce demand on local water supplies, options will be investigated to provide water for the deluge system from wastewater produced through the tunnel drainage system where it meets appropriate quality parameters.	Operation	WCXM4 Co	Not yet triggered	Details regarding compliance with this REMM will be provided prior to operational phase.
OpCC1	The risks of future climate change will be further considered during detailed design.	Pre-Construction	CSJ	Open	A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51, B52 and E26 (h) (iv).



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>This REMM is addressed in Section 5.3 of the DPSP.</p> <p>A climate change risk assessment was undertaken during the detailed design, with no high or extreme risks identified. These risks were also considered in the flood mitigation strategy.</p>
OpCC2	Implement adaptation measures to address high and extreme rated risks identified in the subsequent detailed climate change risk assessment.	Pre-Construction	CSJ	Open	<p>A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51, B52 and E26 (h) (iv).</p> <p>This REMM is addressed in Section 5.3 of the DPSP.</p> <p>A climate change risk assessment was undertaken during the detailed design, with no high or extreme risks identified. These risks were also considered in the flood mitigation strategy.</p>
OpCC3	Where extreme, high or medium risks have been identified in this assessment or subsequent climate change risk assessments, a review of the existing design policies, specifications or practices will be undertaken to consider the impacts of climate change.	Pre-Construction	CSJ	Open	<p>A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51, B52 and E26 (h) (iv).</p> <p>This REMM is addressed in Section 5.3 of the DPSP.</p> <p>A climate change risk assessment was undertaken during the detailed design, with only medium and low initial risks identified. These risks were mitigated, resulting in residual risks of low.</p>
HR1	<p>Site-specific hazard and risk management measures will be included within the CEMP, which will include items such as:</p> <ul style="list-style-type: none"> <li>• Details of the hazards and risk associated with construction</li> <li>• activities for both surface and subsurface works</li> </ul>	Pre-Construction / Construction	CSJ	Open	<p>A Construction Environmental Management Plan (CEMP) (M4E-ES-PLN-PWD-00233) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 22 March 2016.</p> <p>This REMM is addressed in Construction environmental management sub-plans identified in 4.2.2 identify aspects and potential impacts and appropriate management measures.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<ul style="list-style-type: none"> <li>Procedures to comply with legislative and industry standard requirements</li> <li>Training for relevant personnel (including subcontractors) and site inductions, including the recognition and awareness of site hazards and locations of relevant equipment.</li> </ul>				<p>A project risk register is included in Annexure A3. Procedures to comply with legislation and industry standards are outlined in Section 4.2.6.</p> <p>Training is addressed in Section 5 Competence, Training and Awareness</p>
HR2	<p>Dangerous goods and hazardous materials will be stored in accordance with:</p> <ul style="list-style-type: none"> <li>Work Health and Safety Act 2011 (NSW)</li> <li>Storage and Handling of Dangerous Goods Code of Practice (WorkCover NSW 2005)</li> <li>Supplier’s instructions</li> <li>Relevant Australian Standards</li> <li>The Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin (Environment Protection Authority 1997).</li> </ul> <p>For liquids, a minimum bund volume requirement of 110 per cent of the volume of the largest single stored volume within the bund will be provided.</p>	Construction	CSJ	Open	<p>A Construction Soil and Water Management Plan (SWMP) (M4E-ES-PLN-PWD-00242) has been prepared to comply with CoA D57 (f) and was approved by DP&amp;E on 23March 2016.</p> <p>This REMM is addressed in the approved SWMP Table 13 C3, C7.</p> <p>Dangerous goods and hazardous materials were stored onsite on bunds, with application separation distances implemented. Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with this REMM.</p>
HR3	<p>Material Safety Data Sheets for dangerous goods and hazardous substances will be obtained before these materials arrive on site.</p>	Construction	CSJ	Open	<p>Annexure B to the DP&amp;E Approved CEMP (M4E-ES-PLN-PWD-00233 – 22 March 2016) identifies relevant legislation to the project which includes</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
					<p>dangerous goods and hazardous substances legislation.</p> <p>The relevant requirements for the storage and handling of dangerous goods is addressed by the DP&amp;E approved SWMP (M4E-ES-PLN-PWD-00242 – 23 March 2016).</p> <p>Material Safety Data Sheets for dangerous goods and hazardous substances are kept onsite within material. Weekly environmental inspections have been completed during the reporting period covered by this QCCR, to monitor compliance with this REMM.</p>
HR4	<p>Transport of dangerous goods and hazardous substances will be conducted in accordance with relevant legislation and codes, including the <i>Dangerous Goods (Road and Rail Transport) Act 2008</i> (NSW), <i>Dangerous Goods (Road and Rail Transport) Regulation 2014</i> (NSW) and the <i>Australian Code for the Transport of Dangerous Goods by Road and Rail</i> (National Transport Commission 2008).</p>	Construction	CSJ	Open	<p>Annexure B to the DP&amp;E Approved CEMP (M4E-ES-PLN-PWD-00233 – 22 March 2016) identifies relevant legislation to the project which includes dangerous goods and hazardous substances legislation.</p> <p>The relevant requirements for the storage and handling of dangerous goods is addressed by the DP&amp;E approved SWMP (M4E-ES-PLN-PWD-00242 – 23 March 2016).</p> <p>All transport of dangerous goods and hazardous substances were conducted in accordance with relevant legislation and codes, including the <i>Road and Rail Transport (Dangerous Goods) (Road) Regulation 1998</i> and the <i>Australian Code for the Transport of Dangerous Goods by Road and Rail</i> (National Transport Commission, 2008).</p>
OpHR	<p>Dangerous goods and hazardous materials will be stored in accordance with:</p> <ul style="list-style-type: none"> <li>• <i>Work Health and Safety Act 2011</i> (NSW)</li> </ul>	Operation	WCXM4 Co	Not yet triggered	<p>Details regarding storage of dangerous goods and hazardous materials will be provided in the Quarterly Construction Compliance Report issued prior to operational phase.</p>



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
	<ul style="list-style-type: none"> <li>Storage and Handling of Dangerous Goods Code of Practice (WorkCover NSW 2005)</li> <li>Supplier's instructions</li> <li>Relevant Australian Standards</li> <li>The Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin (Environment Protection Authority 1997).</li> </ul> <p>For liquids, a minimum bund volume requirement of 110 per cent of the volume of the largest single stored volume within the bund will be provided.</p>				
OpHR	Material Safety Data Sheets for dangerous goods and hazardous substances will be obtained before these materials arrive on site.	Operation	WCXM4 Co	Not yet triggered	Details regarding the attainment of MSDS details of dangerous goods and hazardous materials will be provided in the Quarterly Construction Compliance Report issued prior to operational phase.
OpHR	Transport of dangerous goods and hazardous substances will be conducted in accordance with relevant legislation and codes, including the <i>Dangerous Goods (Road and Rail Transport) Act 2008</i> (NSW), <i>Dangerous Goods (Road and Rail Transport) Regulation 2014</i> (NSW) and the <i>Australian Code for the Transport of Dangerous Goods by Road and Rail</i> (National Transport Commission 2008).	Operation	WCXM4 Co	Not yet triggered	Details regarding transport of dangerous goods and hazardous materials will be provided in the Quarterly Construction Compliance Report issued prior to operational phase.
OpHR	An Incident Response Plan will be developed and implemented in the event of an accident or incident.	Operation	WCXM4 Co	Not yet triggered	An Incident Response Plan will be developed and implemented prior to commencement of operation with details provided in the Quarterly Construction Compliance Report issued prior to operational phase.



Ref	Environmental management measure	Timing	Responsibility	Compliance status	Comment / evidence
CI1	Consultation will be undertaken with local communities potentially affected by the impacts of multiple projects in addition to the project.	Construction	CSJ	Open	Community consultation will be undertaken in accordance with the Community Communication Strategy (CCS) which has been prepared to comply with CoA C1, and was approved by DP&E on 18 April 2016. Lane and full closures of the M4 Motorway have been timed to coincide with closures required by the M4 Widening project to minimise impacts to the community.
CI2	Where relevant, consultation will be undertaken with proponents of other nearby developments to increase the overall awareness of project timeframes and impacts.	Construction	CSJ	Open	Consultation will be undertaken in accordance with the Community Communication Strategy (CCS) which has been prepared to comply with CoA C1, and was approved by DP&E on 18 April 2016.
S1	The construction contractor would develop and implement a Sustainability Management Plan during detailed design. The Sustainability Management Plan would establish governance structures, processes and systems that ensure integration of all sustainability considerations (vision, commitments, principles, objectives and targets), initiatives, monitoring and reporting during the detailed design and construction phases of the project.	Pre-Construction	CSJ	Open	A Delivery Phase Sustainability Plan (DPSP) (M4E-ES-PLN-PWD-00225) has been prepared to comply with CoA B51 and B52. This REMM is addressed in the Delivery Phase Sustainability Plan (DPSP).