Construction Environmental Management Plan

Western Harbour Tunnel - Stage 3B and 3C

Transport for NSW

NSW GOVERNMENT

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Document control

Approval

Approved on behalf of ACCIONA by	Andrew Marsonet
Signed	
Dated	21 December 2022

Version control

Revision	Date	Description	Approval
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Rev09	01/05/2024	Updated to construction support site activities and inclusion of additional information on 33kV utility installation	C. Weller / M. Lee

List of emergency and key contacts

Position	Name	Phone
EPA pollution hotline	N/A	131 555
Fire and Rescue NSW	N/A	000 (for pollution incidents that present an immediate threat to human health or property) 1300 729 579 (for pollution incidents that do not present an immediate threat to human health or property)
The Ministry of Health	Royal North Shore Hospital Royal North Shore Hospital, Reserve Road St Leonards NSW 2065	(02) 9391 9000
SafeWork NSW	N/A	131 050
Inner West Council	Reception	(02) 9392 5000
North Sydney Council	Reception	(02) 9936 8100
Penrith City Council	Reception	(02) 4732 7777
Port Authority of NSW (Harbour Master)	Reception	(02) 9296 4999
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Glossary/Abbreviations

Abbreviation	Expanded text
AA	Acoustic Advisor
ACCIONA	ACCIONA Construction Australia Pty Ltd
ACHMP	Aboriginal Cultural Heritage Management Sub-plan
ACMP	Artefact Conservation Management Plan
AQMP	Air Quality Management Sub-plan
Ancillary facility	A temporary facility for construction of the CSSI including an office and amenities compound, construction compound, material crushing and screening plant, materials storage compound, maintenance workshop, testing laboratory, material stockpile area and car parking facilities. *Note: where an approved management plan contains a stockpile management protocol, a material stockpile area located within the construction boundary is not considered to be an ancillary facility.*
ASEMP	Ancillary Site Establishment Management Plan
BCS	Biodiversity and Conservation Group of Department of Climate Change Energy, the Environment and Water (formerly Environment and Heritage Group)
CCS	Community Consultation Strategy
CEMP	Construction Environmental Management Plan (this document)
CLMP	Contaminated Land Management Procedure
Compliance audit	Verification of how implementation is proceeding with respect to a Construction Environmental Management Plan (CEMP) (which incorporates the relevant approval conditions).
CSSI	Critical State Significant Infrastructure
DPI	Department of Primary Industries
DPHI	Department of Planning, Housing and Infrastructure (formerly Department of Planning and Environment (DPE))
EIS	Environmental Impact Statement
EMS	Environmental Management System
Environmental aspect	Defined by AS/NZS ISO 14001:2015 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Environmental incident	An unexpected event that has, or has the potential to, cause harm to the environment and requires some action to minimise the impact or restore the environment.
Environmental objective	Defined by AS/NZS ISO 14001:2015 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.

Abbreviation	Expanded text
Environmental policy	Statement by an organisation of its intention and principles for environmental performance.
Environmental target	Defined by AS/NZS ISO 14001:2015 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ER	Environmental Representative(s) - A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.
ERG	Environmental Review Group – generally comprising representatives of TfNSW, Environmental Representative, Project delivery team, regulatory authorities (DPE, EPA) and councils (North Sydney Council, Inner West Council). The ERG will be maintained for the duration of the Project and will meet regularly and undertake environmental inspections. The role of the ERG is to work collaboratively with the project team to provide proactive advice on environmental management issues on the Project.
EWMS	Environmental work method statement
FFMP	Flora and Fauna Management Sub-plan
Hold point	Is a verification point that prevents work from commencing prior to approval from TfNSW
ICNG	*Interim Construction Noise Guidelines* (Department of Environment and Climate Change, 2009)
MCC	Motorway Control Centre
MCoA	NSW Minister's Conditions of Approval
Minister, the	Minister for Planning and Public Spaces
MOD2	Western Harbour Tunnel and Warringah Freeway Upgrade TBM solution of crossing Sydney Harbour – Modification 2
NAHMP	Non Aboriginal Heritage Management Sub-plan
NML	Noise Management Level
NSW	New South Wales
NVMP	Noise and Vibration Management Sub-plan
Non-compliance	Failure to comply with the requirements of the Project approval or any applicable licence, permit or legal requirements.
Non-conformance	Failure to conform to the requirements of Project system documentation including this CEMP or supporting documentation.
PESCP	Progressive Erosion and Sediment Control Plan
PIRMP	Pollution Incident Response Management Plan

Abbreviation	Expanded text
POEO Act	*Protection of the Environment Operations Act 1997* (NSW)
Project, the	Western Harbour Tunnel project
REMM	Revised Environmental Management Measure as provided in the Response to Submissions Report for Modification 2
Roads and Maritime	Former NSW Roads and Maritime Services (now part of Transport for NSW)
RtS	Response to Submissions Report (for the EIS)
MOD2 RtS	Response to Submissions Report (for the Western Harbour Tunnel and Warringah Freeway Upgrade TBM solution for crossing Sydney Harbour–Modification 2)
SAM	Sensitive Area Map
SMART	Specific, Measurable, Achievable, Relevant and Time-based
SSI	State Significant Infrastructure
SSWMP	Soil and Surface Water Management Sub-plan
TBM	Tunnel boring machine
TfNSW	Transport for New South Wales
TTAMP	Traffic, Transport and Access Management Sub-plan
WFU	Warringah Freeway Upgrade (component of the Western Harbour Tunnel and Warringah Freeway Upgrade project)
WHT	Western Harbour Tunnel (component of the Western Harbour Tunnel and Warringah Freeway Upgrade project)
WRMP	Waste and Resource Management Sub-plan

1 Introduction

1.1 Background

The Western Harbour Tunnel and Warringah Freeway Upgrade project comprises a new motorway tunnel connection across Sydney Harbour, and an upgrade of the Warringah Freeway to integrate the new motorway infrastructure with the existing road network and to enable the potential future connection of the Beaches Link and Gore Hill Freeway Connection project.

The Western Harbour Tunnel and Warringah Freeway Upgrade Environmental Impact Statement dated January 2020 (the EIS) was prepared to assess the impacts of construction and operation of the Western Harbour Tunnel and Warringah Freeway Upgrade project. A Response to Submissions report dated September 2020 (the RtS) was prepared in response to submissions received on the EIS. The EIS environmental management measures were revised and included in Part D of the RtS report.

The Western Harbour Tunnel and Warringah Freeway Upgrade project is classified as State Significant Infrastructure under Part 5, Division 5.2 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act) and Clause 94 of the State Environmental Planning Policy (Infrastructure) 2007. The Western Harbour Tunnel and Warringah Freeway Upgrade project was declared Critical State Significant Infrastructure (CSSI) by the NSW Minister for Planning and Public Spaces (the Minister) on 9 November 2020 under Section 5.13 under the EP&A Act and Clause 16 of the State Environmental Planning Policy (State and Regional Development) 2011.

The Western Harbour Tunnel and Warringah Freeway Upgrade project was approved by the Minister on 21 January 2021.

The construction methodology of the project has changed and subsequently a modification to the project approval was required. The Western Harbour Tunnel and Warringah Freeway Upgrade tunnel boring machine (TBM) solution of crossing Sydney Harbour – Modification 2 (MOD2) application proposed to modify the construction methodology across Sydney Harbour from an immersed tube tunnel (IMT) design with transition structures at both ends of the harbour crossing, to a tunnel TBM methodology and to include an additional construction ancillary facility at Emu Plains (WHT13). MOD2 was lodged on 14 July 2023. The environmental management measures in the RtS report were revised and included in Appendix B2 of the MOD2 report.

A Response to Submissions Report dated 11 October 2023 (the MOD2 RtS) was prepared in response to submissions received on the MOD2 application. MOD2 application was approved by the Minister in January 2024 and subsequently the Minister's Conditions of Approval (MCoA) was updated.

1.2 Purpose

This CEMP and Sub-plans have been prepared to outline and describe how ACCIONA will, during the construction of the Project, comply with the Minister's Conditions of Approval (MCoA). Additionally, it outlines how ACCIONA will minimise the environmental risks and achieve environmental outcomes on the project by providing a structured approach to ensure appropriate Revised Environmental Management Measures (REMMs) from the MOD2 report and the relevant controls are implemented.

An overview of the Project is provided in Section 1.3, while a detailed description of the Project is provided in Chapter 5 (Project Description) of the EIS and Section 5 of the MOD2 report.

This CEMP was prepared in accordance with:

- *Environmental Management Systems Guidelines* (NSW Government, Edition 3 - August 2013)
- *Environmental Management Plan Guideline for Infrastructure Project* (Department of Planning, Industry and Environment, 2020)
- The MCoA (SSI 8863)

- ACCIONA Integrated Management System (AIMS) which incorporates the Environmental Management System (EMS)
- *RMS QA Specification G36* (as amended for the Project) (G36); and
- *AS/NZS ISO 14001*.

The purpose of the CEMP is to provide a structured approach to the management of environmental issues during construction of the Project. Implementing this CEMP will ensure that the Project meets regulatory and policy requirements, including TfNSW's requirements and the MCoA, in a systematic manner. The requirements of the MCoA specifically relevant to the preparation of this CEMP are provided in Table 1-1.

Table 1-1 Content for inclusion in the CEMP (MCoA C2).

Requirement	Where addressed
(a) a description of activities to be undertaken during construction (including the scheduling of construction);	Section 1.5
(b) details of environmental policies, guidelines and principles to be followed in the construction of the CSSI;	Section 4.3 Section 5.2 Appendix A1
(c) a program for ongoing analysis of the key environmental risks arising from the activities described in subsection (a) of this condition, including an initial risk assessment undertaken before the commencement of construction of the CSSI;	Section 5.1 Section 5.3 Section 5.12 Section 5.13
(d) details of how the activities described in subsection (a) of this condition will be carried out to: (i) meet the performance outcomes stated in the documents listed in Condition A1; and (ii) manage the risks identified in the risk analysis undertaken in subsection (c) of this condition;	Section 5
(e) an inspection program detailing the activities to be inspected and frequency of inspections;	Section 5.12
(f) a protocol for managing and reporting any: (i) incidents; and (ii) non-compliances with this approval or statutory requirements;	Section 5.11
(g) procedures for rectifying any non-compliance with this approval identified during compliance auditing, incident management or at any time during construction;	Section 5.15
(h) a list of all the CEMP Sub-plans required in respect of construction, as set out in Condition C4. Where staged construction of the CSSI is proposed, the CEMP must also identify which CEMP Sub-plan applies to each of the proposed stages of construction;	Section 4.2
(i) a description of the roles and environmental responsibilities for relevant employees and their professional / organisational relationship with the ER;	Section 5.7
(j) for training and induction for employees, including contractors and sub-contractors, in relation to environmental and compliance obligations under the terms of this approval;	Section 5.9
(k) for periodic review and update of the CEMP and all associated plans and programs; and	Section 5.17

Requirement	Where addressed
(l) the outcomes of consultation with government agencies in accordance with Condition A5.	Section 2.2

The requirements of the Project approval in totality have been summarised in Appendix A1 with a corresponding comment or document reference to identify means of compliance.

1.3 Project description and staging

The Western Harbour Tunnel and Warringah Freeway Upgrade project is being constructed in three stages, as described in the Transport for New South Wales (TfNSW) Staging Report, summarised below:

- Stage 1 – Early and Enabling Works
- Stage 2 – Warringah Freeway Upgrade (WFU)
- Stage 3 – Western Harbour Tunnel Project (WHT): The WHT will connect the M4-M5 Link in Rozelle, to the Warringah Freeway at North Sydney/Cammeray, delivered over three stages:
    - **Stage 3A – WHT Southern Tunnels**: comprising of twin bored tunnels between the M4-M5 Link Rozelle Interchange and Birchgrove. Works have commenced on this stage.
    - **Stage 3B – WHT Northern Tunnels, Approaches and Integration Works:**
        - Integrate with the Stage 3A underground WHT Southern Tunnels Works near Birchgrove (Chainage 2750) on the southern zone, aka ‘the Southern approach and integration’.
        - Integrate with the Warringah Freeway Upgrade works in the north near Cammeray, incorporating a north bound off-ramp at Falcon Street, southbound on-ramp at Berry Street, aka ‘the northern approach and integration’.
        - The northern tunnelling between the harbour crossing and the Warringah Freeway
    - **Stage 3C – Harbour Crossing**
        - The crossing of Sydney Harbour between Birchgrove and Balls Head, Waverton.

As the Project will be constructed in stages, so too will this CEMP be prepared to accommodate different stages of work. This iteration addresses WHT Stage 3B and 3C. The scope for Stage 3B and 3C is described below.

Stage 3B – WHT Northern Tunnelling and Integration works

- Excavation of twin mainline tunnels about 2.5 kilometres long and each accommodating three lanes of traffic in each direction, connecting portals adjacent to the Cammeray Golf Course to the Harbour Crossing section of the tunnel at Berrys Bay.
- Excavation of Falcon Street off-ramp tunnel.
- Excavation of Berry Street on-ramp tunnel.
- Cut and cover infrastructure surface construction at the Ridge Street North construction support site (WHT9), Berry Street and the Warringah Freeway portals.
- Integration works including Mechanical and Electrical (M&E) fit out for the Southern and Northern tunnelling sections, paving, surface connections, ventilation cavern fitout,

integration and fitout of the Motorway Operation Centre (MOC) and Motorway Control Centre (MCC)

- Establishment and operation of Glebe Island (WHT3), Berry Street (WHT8), Ridge Street North (WHT9), and Cammeray Golf Course (WHT10) construction support sites.
- Operation of the City West Link Portal tunnelling support site (WHT12) after the completion of Stage 3A.
- Installation of acoustic structures at construction support / ancillary sites (e.g. Ridge Street north (WHT9) construction support site).
- Utilities connections including but not limited to power, potable water, sewerage.
- Carrying out of surveys, test drilling, test excavations, geotechnical or contamination investigations or other tests or surveys, sampling or investigation

Stage 3C – WHT Sydney Harbour Crossing

- Excavation of about 1.8 km of twin mainline tunnels using Tunnel Boring Machine (TBM) methodology.
- Construction of launch chambers beneath Birchgrove, and receival chambers and burial beneath the Waverton Peninsula.
- Establishment and operation of an underground slurry treatment plant within an existing ventilation cavern (constructed by the Stage 3A contractor).
- Establishment and operation of an underground Water Treatment Plant.
- Establishment and operation of an underground grout batching plant.
- Access and egress via City West Link Portal (WHT12) for:
  - Spoil removal.
  - Materials and equipment delivery, including concrete tunnel segments and box culverts.
- Use of Ridge Street North (WHT9) as a tunnelling support site, including the construction of an acoustic shed.
- Construction and operation of an additional construction ancillary facility at Emu Plains (WHT13), primarily for the prefabrication and storage of tunnel lining segments, box culverts and other pre-cast concrete elements.

The construction of the Stages 3B and 3C will be supported by surface based ancillary facilities which will be located at:

- Glebe Island in Rozelle (WHT3)
- Berry St in North Sydney (WHT8)
- Ridge St in North Sydney (WHT9)
- Cammeray Golf Course in Cammeray (WHT10)
- various sites adjoining the Warringah Freeway
- City West Link portals (WHT12)
- Emu Plains (WHT13)

1.4 Scope

This CEMP and Sub-plans were prepared in accordance with RMS Specification G36 and the *Environmental Management Plan Guideline – Guideline for Infrastructure Projects* (DPE, April 2020). They are also consistent with AS/NZS ISO 14001.

In particular, this CEMP:

- Describes the Project in detail, including activities to be undertaken and relative timing.

- Addresses the requirements of the MCoA, the EIS, the REMMs listed in the MOD2 report, and applicable guidance and legislation.
- Provides specific mitigation measures and controls that can be applied on-site to avoid or minimise negative environmental impacts.
- Provides specific mechanisms for compliance with applicable policies, approvals, licences, permits, consultation agreements and legislation.
- Describes the environmental management related roles and responsibilities of personnel.
- States objectives and targets for issues that are important to the environmental performance of the Project.
- Outlines a monitoring regime to check the adequacy of controls as they are implemented during construction.

The Legal and Compliance Tracking checklist in Appendix A1 demonstrates how this CEMP complies with the environmental requirements.

1.5 Construction Methodology

1.5.1 Enabling works

Enabling works for major infrastructure projects are carried out prior to substantial construction in order to prepare sites to facilitate the main construction activities. Some early works would take place prior to the formal approval of construction management plans, and would include:

- Property acquisitions
- Carrying out existing condition surveys of buildings and infrastructure
- Land remediation (where required)
- Installation, relocation, adjustment and protection of utilities and services affected by the Project
- Carrying out of heritage investigations, protections, salvage and/or conservation works, and other environmental protection measures.
- Carrying out of surveys, test drilling, test excavations, geotechnical or contamination investigations or other tests or surveys, sampling or investigation

Augmentation and/or provision of new utility services (such as electricity supply) may be required to provide power to the Project. The installation of 33kV power lines are critical to the Project. The project proposes to install underground 33kV power lines in the Rozelle Precinct to provide permanent power required to service construction worksite and plant such as the TBMs as well as providing permanent power during the operational phase of the Western Harbor Tunnel. This will entail additional temporary surface activities. Key activities includes:

- establishing traffic controls and work site boundaries
- trenching and excavation works
- installation of conduits
- backfill and road reinstatement
- cable hauling through the conduits

The general extent of these works would be typical of most large infrastructure construction projects. The alignment has been determined and included in the Sensitive Area Maps (Appendix A4); however, further detailed design is ongoing particularly in relation to the underground connections and jointing bays. The remaining detailed design elements are not expected to change the impacts on aspects nor the risk profile of the work.

1.5.2 Site establishment

Site establishment would occur prior to the major construction activities commencing and would include:

- Vegetation clearing, chipping and mulching where required
- Installation of site environmental management controls (including site fencing, noise attenuation measures, dust and erosion and sediment controls)
- Traffic management controls, including adjustments to road signage where required (showing changes to traffic movements and speed limits)
- Construction of minor access roads and the provision of property access including the temporary relocation of pedestrian and cycle paths and bus stops
- Earthworks to level the construction support sites in preparation for site work and installation of site facilities
- Building construction support sites (including temporary site access), acoustic sheds and associated access decline acoustic enclosures, where required
- Demolition of existing structures which require removal to enable construction of the project

1.5.3 Tunnel construction accesses

To enable construction of the driven tunnels, construction accesses need to be created from construction support sites to the mainline tunnel alignment.

Access to northern tunnels would be from declines construction at Ridge St and Cammeray construction support sites. Access to the southern portion of the Project would be from the existing WHT Cut and Cover Structure at Rozelle. The locations of these sites are shown in Figure 1-1 and Figure 1-2.

1.5.4 Excavated access decline

An excavated access decline would be required at Cammeray Golf Course (WHT10) construction support site.

The access decline provides access for workers, equipment, material supply, and spoil removal. The temporary tunnel ventilation and services such as compressed air, potable water and drainage return lines will also be installed through the decline. A portion of this decline will be used for permanent ventilation tunnels connecting to the motorway facilities at the Warringah Freeway.

1.5.5 Construction of driven tunnel

The Project will involve the construction of two mainline tunnels, as well as on and off ramps, cross passages and ventilation tunnels. The majority of this tunnelling work is expected to be carried out in Hawkesbury sandstone using electrically powered machines.

Tunnelling includes construction phase access declines, operational phase access ramps, mainline (driven) tunnels from Cammeray towards Sydney Harbour, and shafts and ventilation tunnels for the ventilation outlet and motorway facilities at the Warringah Freeway.

The tunnel below Sydney Harbour (between Birchgrove and Balls Head) will be constructed using two mix shield tunnel boring machines (TBMs). Each TBM would typically consist of a shielded cutting head and trailing backup support services and mechanisms. During TBM excavation, hydraulic cylinders push the cutter head forward by bracing against the already installed concrete lining. Once an excavation cycle is complete, and enough space has been created at the front of the TBM, the hydraulic cylinders segmentally will retract to allow for placement of the next pre-cast concrete segments.

Ground support for tunnels excavated using road headers will typically consist of cement grouted rock anchors and/or rock bolts and shotcreting. In areas which require control of higher levels of groundwater ingress, the permanent tunnel lining may include additional shotcrete or a concrete

lining with a water control measures. Ground support will be installed progressively following tunnel excavation.

In addition to the mainline tunnels and on and off ramp tunnels, pedestrian cross passages will be excavated between the mainline tunnels at intervals to facilitate emergency egress and house Mechanical and Electrical equipment. These cross passages will be typically excavated using roadheaders, additional methods may be considered on the basis of plant availability, location or size of the required excavation.

Rock hammering may be used in some areas for excavation of the mainline tunnels, cross passages and within the cut and cover structures. Controlled underground blasting may also be used to improve the efficiency of excavation activities and shorten the overall excavation program. Areas likely to require controlled blasting will be confirmed during detailed construction planning. In the case blasting is required, a Blast Management Plan will be prepared as required under MCoA E96-E99.

1.5.6 Cut and cover and trough structures

Cut and cover tunnels and trough structures are constructed at locations where the tunnel alignment connects to and from the surface and does not have enough rock cover for construction using road headers.

Cut and cover structures typically transition to open trough structures which connect to and from the surface. Construction of trough structures is similar to cut and cover, except a cover is not installed.

Cut and cover tunnels and trough structures are anticipated to be constructed at the following locations:

- Where the Western Harbour Tunnel connects to the Warringah Freeway, to the north of the Ernest Street overbridge (being excavated by WFU contractor)
- The Western Harbour Tunnel off ramp to Falcon Street, beneath the south-eastern corner of St Leonards Park
- The on ramp to the Western Harbour Tunnel from the Berry Street ramp to the Warringah Freeway, North Sydney (trough structure only)

The Project will include the excavation and fitout (including pavement works to tie-in to the Warringah Freeway Upgrade) for the Western Harbour Tunnel on and off ramps to the Warringah Freeway.

1.5.7 Integration, tunnel fitout and finishing

Based on Project staging, there will be some integration works required to physically connect different stages of the Project, constructed by different contractors. This includes:

- Underground integration with the Stage 3A Southern Tunnels Works near Birchgrove, requiring tie-into the existing tunnel and tunnelling fitout works; and
- Surface works to integrate with the Warringah Freeway Upgrade in North Sydney and Cammeray, including:
    - north bound off-ramp at Falcon Street,
    - southbound on-ramp at Berry Street

Fitout and finishing works to be completed within the mainline tunnels are listed in Table 1-2 below.

Table 1-2 Tunnel fitout and finishing works

Construction activity	Description
Roadway services crossings	Trenches will be constructed across the roadway at locations where tunnel services (e.g. Rising Main, High Voltage) are required to traverse from one side of the tunnel to the other. These trenches will be excavated using either a rock saw and hydraulic hammer (mounted on an excavator) or a trenching machine. The required services will then be installed in the trench and backfilled with a flowable fill or concrete.
Roadway drainage	Trenches will be constructed on the low side of the road pavement where water runoff will be directed during operation. These trenches will be excavated using either a rock saw and hydraulic hammer (mounted on an excavator) or a trenching machine. Drainage pipes will be placed within the trench and held in place, and the trench will then be backfilled with concrete.
Pavement works and asphalting	Continuously reinforced concrete pavement will be installed within the mainline tunnels and caverns.
Traffic barriers	Constructed from concrete using a specialised barrier placement machine or alternative methods where the machine is unable to access that location.
Mechanical and electrical infrastructure	This will include the installation of: • Tunnel lighting and surveillance cameras • Operations management and traffic management equipment • Toll points within the mainline tunnels • Cross passages and equipment rooms, including lighting, power, exit lights and signage • Emergency and surveillance systems • Fire systems and protection equipment • Underground pump station • Underground substations • Ventilation system, jet fans and support frames • Cabling including high voltage and low voltage cables, power supply cables from substations, power and control cables from jet fans to substations and communications cables, including all cable containment • Substation equipment.
Finishing works	Finishing works within the mainline tunnels will include: • Testing and commissioning all equipment and systems • Installation of architectural wall panels above the concrete traffic barriers • Painting of all other sections of the mainline tunnels and ramps not covered by a traffic barrier or wall panel with black paint • Linemarking.

Construction activity	Description
Surface works integration	• Road pavement tie-in • Minor surface roads and intersection adjustments • Road furniture and signage adjustments and additional placements • Line-marking.

1.5.8 Construction of operational facilities and ancillary infrastructure

Permanent operational infrastructure would be required for the ongoing management and operation of the project. Operational infrastructure would be mainly located near the surface connections at Rozelle, Cammeray and Milsons Point. The typical construction method for operational facilities and ancillary infrastructure is summarised in Table 1-3.

Table 1-3 Construction of operational facilities and ancillary infrastructure

Operational facilities	Construction method
Tunnel ventilation systems	Construction of the tunnel ventilation systems will involve: • Excavation and fitout of the ventilation tunnels to the mainline tunnels • Construction and fitout of the Western Harbour Tunnel motorway facilities building at the Warringah Freeway, which would include erecting precast concrete panels, block walls and an enclosed roof • Construction of ventilation outlets (including the Beaches Link and Gore Hill Freeway Connection project ventilation outlet at the Warringah Freeway) • Internal fitout of plant areas and motorway facilities, equipment installation and commissioning. The project will construct the Beaches Link and Gore Hill Freeway Connection project ventilation outlet at the Warringah Freeway (with fitout to be carried out as part of the Beaches Link and Gore Hill Freeway Connection project). The construction of the ventilation outlet and motorway facilities for the project at the Rozelle Interchange is to be carried out as part of the M4-M5 Link project. The excavation of ventilation tunnels to the motorway facilities and ventilation outlet will be carried out as part of this Project.
Motorway control centre	Construction/internal fitout of the motorway control centre

Operational facilities	Construction method
Tunnel support facilities	Construction of the tunnel support facilities at Cammeray will include: • Excavation, footing and base slab installation • Construction of columns and deck to the three floors • Construction of columns to support the roof • External architectural treatments • Utilities connections including power, potable water, sewerage • Internal fitout of control rooms, computer rooms, offices and workshop and associated staff amenities • Security fencing.
Wastewater treatment plant	The operational wastewater treatment plant will be constructed at the Rozelle Interchange using prefabricated components which will be assembled as follows: • Mechanical assembly of operational wastewater treatment plant components, including rising main from tunnel and discharge pipework • Complete electrical connections between the operational wastewater treatment plant components and incoming power supply • Commission the operational wastewater treatment plant • Connection of the wastewater treatment plant to the local stormwater network.
Substations	There are six substations required for the operation of the Western Harbour Tunnel. • Substation 0 is the main incoming substation for the project, which is located on the surface in Rozelle. The shell of this structure is provided by the Rozelle Interchange Contractor as part of the M4-M5 Rozelle Interchange project, and will be fitted out with electrical equipment under Stage 3B. • Substation 1 is a room also provided in Stage 3A in the City West Link cut and cover structure, again fitted out under Stage 3B. • Substation 2 and Substation 3 are located underground and provided in Stage 3A, with fitout under Stage 3B. • Substation 4 is located underground, with the excavation and the fitout under Stage 3B • Substation 5 is located on the surface at Cammeray, with the build and fitout under Stage 3B.

1.5.9 Construction ancillary facilities

Temporary construction ancillary facilities will be required to support the WHT works. Each of these construction support sites will require additional surface infrastructure to support tunnel construction, such as acoustic sheds, air intake facilities, power and water supply and water treatment plants to treat wastewater generated from tunnel construction activities and groundwater inflow.

Construction support sites required for Stage 3B and 3C include:

- Glebe Island (WHT3)
- Berry Street north (WHT8)
- Ridge Street north (WHT9)
- Cammeray Golf Club (WHT10)
- City West Link Portal (WHT12)
- Emu Plains (WHT13)

The locations of these sites are shown in Figure 1-1, to Figure 1-3. A description of each site is provided in Table 1-4 to Table 1-9.

Figure 1-1 Location of Construction Ancillary Facilities WHT12 and WHT3

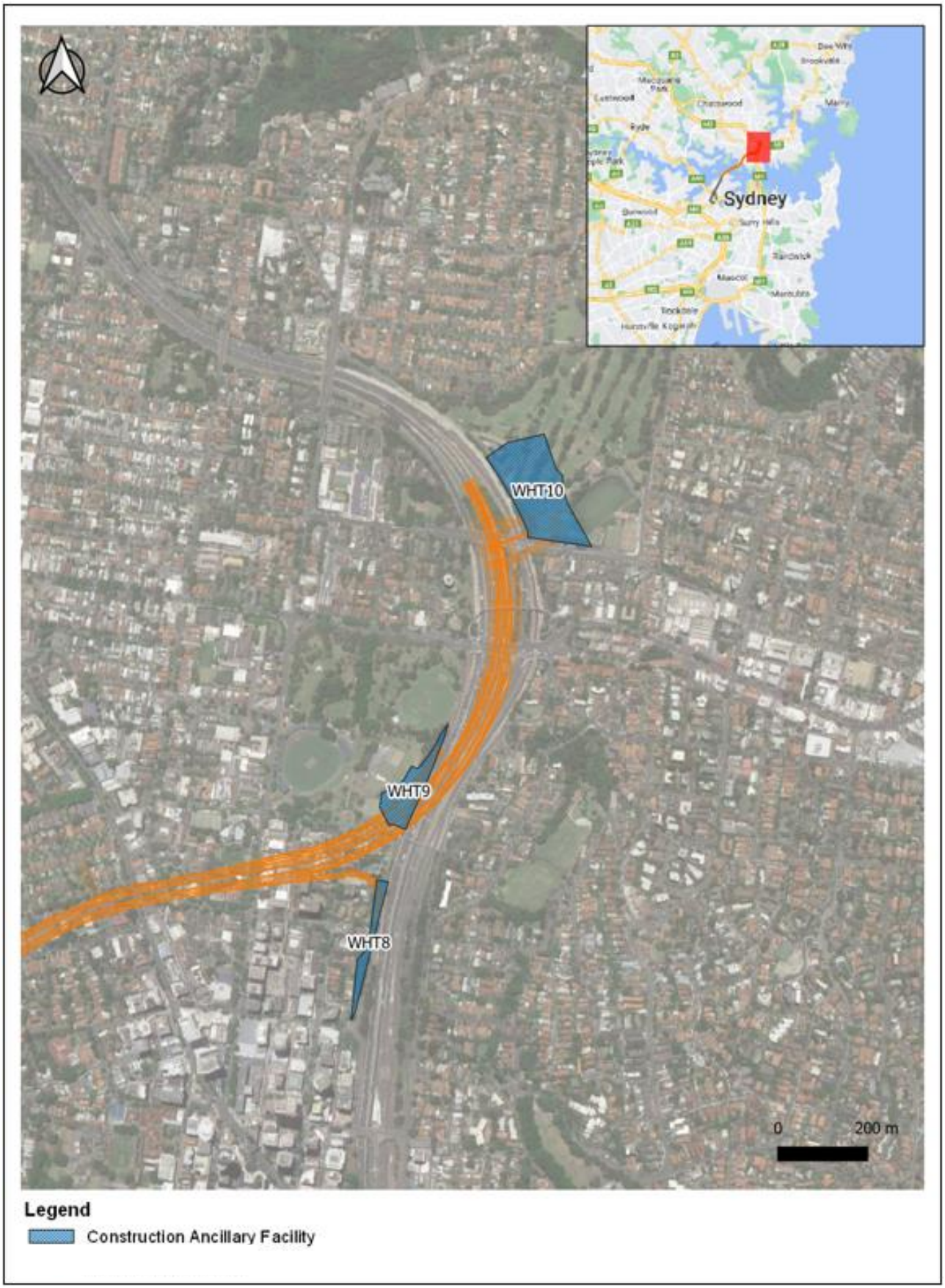

Figure 1-2 Location of Construction Ancillary Facilities WHT8, WHT9 and WHT10

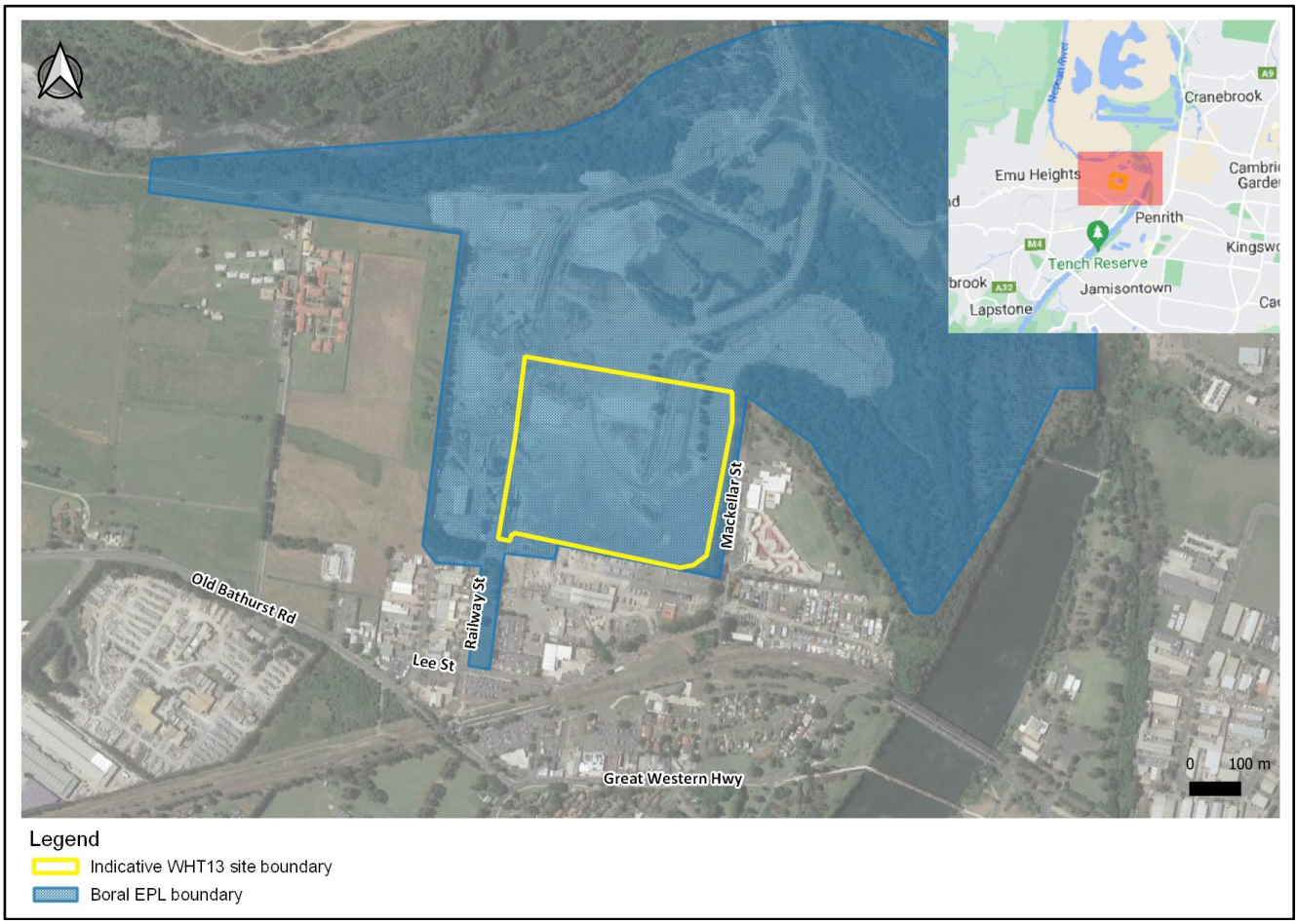

Figure 1-3 General location of Construction Ancillary Facility WHT13

WHT3 –Glebe Island

Table 1-4 Key features of the Glebe Island construction ancillary site (WHT3)

Key features	Summary
Site area	55,000 m^2
Site description	The site on the northern side of the original EIS footprint of Glebe Island is no longer proposed to be utilised. The project only requires use of the Glebe Island construction support site on the southern side of White Bay and for the purposes of this report WHT3 is now referred to as the Glebe Island construction support site. Located in White Bay at Rozelle, the site is bound by a mixture of industrial and high density residential properties to the north, Jones Bay/Johnstons Bay to the east, Rozelle Bay/Blackwattle Bay to the south and a mixture of industrial and high density residential properties to the west.

Key features	Summary
Key activities	The southern portion of Glebe Island would be used to support the handling and transport of spoil from construction support sites, along with providing ancillary facilities and support to the harbour crossing works. This site would also be used to store plant and equipment until it is required at construction support sites. Key activities that would occur on, or be supported by this site would include: • Site establishment • Stockpiling • Parking facilities • Storage and transport of major plant and equipment for construction support sites as well as the harbour crossing works. • Short term storage and transport of excavated material from TBM tunnelling. • Laydown and storage of pre-cast segments for contingency purposes if supply is interrupted.
Hours of construction	As part of the approval of MOD2, Glebe Island construction support site will operate 24 hours a day, seven days a week to allow for TBM support activities and parking and transferring workers into the tunnel as required.
Access arrangements	Access in and out of the Glebe Island would be via James Craig Road and Sommerville Road.

WHT8 – Berry Street north

Table 1-5 Key features of the Berry Street north construction ancillary site (WHT8)

Key features	Summary
Site area	5600 m^2
Site description	The site is located within the Warringah Freeway corridor at North Sydney between the Berry Street on ramp and Warringah Freeway to the east and high-rise residential buildings to the west. The site slopes from the west down towards the Warringah Freeway and comprises a mixture of planted native vegetation and maintained grass verges.
Key activities	The site is located in the construction footprint for the operational road and will include facilities to provide support for construction of the Berry Street on ramp to the Western Harbour Tunnel, including cut and cover structures, tunnel portal and widening of the northbound carriageway of the Warringah Freeway. Its use in conjunction with the Cammeray Golf Course construction support site (WHT10), will allow the size of this site to be minimised.

Key features	Summary
Hours of construction	The majority of construction activities at this site will be carried out during standard construction hours (7am to 6pm Monday to Friday, 8am to 6pm Saturday (with Highly Noise Intensive Works finishing at 1pm) and no construction works on Sundays or public holidays). Some construction activities supported by this site will require out of hours work (e.g. during connection of new works to the existing road). This means that there will be limited periods throughout the construction program where construction will occur outside of standard construction hours.
Access arrangements	Access into the site will be via Berry Street and out of the site via Warringah Freeway.

WHT9 – Ridge Street north

Table 1-6 Key features of the Ridge Street north construction support site (WHT9)

Key features	Summary
Site area	10,200 m^2
Site description	The site is located in the south-eastern corner of St Leonards Park, North Sydney and is bound by the Warringah Freeway to the east and Ridge Street to the south. The site is heavily sloped from west to east towards the Warringah Freeway and incorporates some planted trees as well as large areas of maintained lawn. The nearest residential properties are located on Ridge Street, about 30 metres from the southern boundary of the construction support site. Other sensitive receivers nearby include the North Sydney Bowling Club, St Mary's Catholic Primary School, Wenona Girls School, and the general public using the park for recreational purposes. The construction support site is within St Leonards Park which is listed as a State significant heritage item (refer to Chapter 14 (Non-Aboriginal heritage) of the EIS for additional information). An acoustic shed will be constructed to fully enclose the tunnel spoil handling area of the site to reduce potential noise impacts.
Key activities	The site will enable construction of: • The cut and cover and trough portion of the Western Harbour Tunnel off ramp to Falcon Street • Excavation of tunnel off ramp connecting to mainline tunnels • Surface works required to integrate the Falcon Street off ramp • Tunnel civil and mechanical and electrical fitout • Excavation, handling, stockpiling and transportation of tunnel spoil • Treatment of wastewater from tunnelling activities The construction support site will connect with the Ridge Street east construction support site (WFU6) (used for the Warringah Freeway Upgrade).

Key features	Summary
Hours of construction	As part of the approval of MOD2, Ridge Street north construction support site will operate 24 hours a day, seven days a week to allow for tunnel support activities and parking and transferring workers into the tunnel as required. The number of spoil and concrete trucks exiting the Ridge Street north construction support site between the hours of 10pm and 7am, Monday to Sunday, travelling westbound along Falcon Street are limited to 100 vehicles per night in accordance with CoA 135A.
Access arrangements	Access in and out of the site for all vehicles will be primarily via Warringah Freeway. Access to the site via Ridge Street will be provided for light vehicles and occasional heavy vehicles (HV) during establishment of the site. There will be limited use of this access once the site is established.

WHT10 – Cammeray Golf Course

Table 1-7 Key features of the Cammeray Golf Course construction support site (WHT10)

Key features	Summary
Site area	30,300 m^2
Site description	The site is located within the south-west portion of the Cammeray Golf Course at Cammeray. The construction support site is bound by residential properties to the north, Cammeray Golf Course and Cammeray Park to the east, Warringah Freeway to the west and Ernest Street to the south. Residential properties are located to the north of the construction support site on Warringah Road and Morden Street and to the south across Ernest Street. The Cammeray Golf Course site will be located next to a separate construction support site for the Warringah Freeway Upgrade works (WFU8). The construction support site has been designed to avoid impacts to the football pitch, skate park, croquet club and tennis courts at Cammeray Park. These will all remain open during construction. The golf course will also remain operational during construction.
Key activities	This site will support the majority of tunnel excavation north of Sydney Harbour for the Western Harbour Tunnel. This will include excavation of a tunnel construction access decline, ramp tunnels, mainline tunnels and ventilation tunnels. Key activities that will occur on, or be supported by, this site will include: • Excavation of an access decline • Excavation of driven mainline tunnels from Cammeray towards Sydney Harbour • Excavation of ramp tunnels • Excavation of shafts and ventilation tunnels for the ventilation outlet and motorway facilities at the Warringah Freeway • Construction and fitout of the Western Harbour Tunnel motorway facilities • Civil construction only of the Beaches Link ventilation outlet at the Warringah Freeway (fitout to be completed as part of the Beaches Link

Key features	Summary
	and Gore Hill Freeway Connection project (subject to separate assessment and approval)) • Construction of the substation and operational support facilities • Treatment of wastewater from tunnelling activities • Excavation, handling, stockpiling and transportation of tunnel spoil • Tunnel civil and mechanical and electrical fitout • Crushing of materials for filling and compaction works • Utility relocations.
Hours of construction	Tunnel construction and fitout will be carried out up to 24 hours per day, seven days per week either within an acoustic shed or underground. Night time deliveries will be required to support the tunnelling activities. Crushing and screening activities will also be carried out within the acoustic shed.
Access arrangements	Access in and out of the site will be via Warringah Freeway, with an additional access provided at Ernest Street.

WHT12 – City West Link Portal

Table 1-8 Key features of the City West Link Portal construction support site (WHT12)

Key features	Summary
Site area	1000 m^2
Site description	Located within the Rozelle Rail Yards at Rozelle, which is bound by Lilyfield Road to the north and the City West Link to the south. The site is contained predominantly within the cut and cover structure, bordered by City West Link to the south. The nearest residences are located to the south of the construction support site on Railway Parade, Annandale. The site is situated within the WHT cut and cover structure being built by the M4-M5 Link project. The portal entrance sits level with City West Link and the ancillary site will operate predominantly within the cut and cover structure. Site establishment will occur as part of the M4-M5 Link project.
Key activities	The construction support site will support excavation and constructions works for the mainline and ventilation tunnels. Key activities that will occur on, or be supported by this site will include: • Excavation of driven mainline and ventilation tunnels, including cross passages • Treatment of wastewater from tunnelling activities • Excavation, handling, stockpiling and transportation of tunnel spoil.

Key features	Summary
Hours of construction	As part of the approval of MOD2, the City West Link Portal construction support site will operate 24 hours a day, seven days a week to allow for TBM support activities such as spoil haulage and parking and transferring workers into the tunnel as required.
Access arrangements	Access and egress will be via City West Link.

WHT13 – Emu Plains

Table 1-9 Key features of the Emu Plains construction ancillary facility (WHT13)

Key features	Summary
Site area	145,000 m^2
Site description	This site is bound by the Nepean River to the north, the Great Western Highway to the south, Penola Catholic College to the east, and Emu Plain Correctional facility to the west. Residential properties are located to the south of the site with the closest two located on Railway Street. A Big 4 Holiday Park is located along the southern portion of Mackellar St between Penola Catholic College, CathWest Innovation College and the railway corridor. A number of residential and commercial properties are also located further south between the Great Western Highway and the railway corridor. WHT13 is located on a portion of land that has been operated by Boral since 1968 and has been licenced under an EPL since 2000. The Boral site is currently licenced to carry out scheduled activities such as crushing, grinding or separating, resource recovery and waste storage.
Key activities	The site would supply the manufactured segments directly to the City West Link Portal construction support site (WHT12) using large trucks (potentially purpose built) and including possibly B-doubles. The use of the Emu Plains construction ancillary facility (WHT13) would be temporary, with construction and operation of the facility occurring for about three to four years, subject to the delivery strategy and construction program for the Project. Whilst the majority of the segments would be transported directly into the tunnel from the proposed Emu Plains construction ancillary facility (WHT13), if this supply is interrupted, segments would be sourced from a possible contingency stockpile at Glebe Island (WHT3). Key activities that will occur on, or be supported by this site will include: • manufacture and temporary storage of concrete segments for the mainline tunnel • operating of casting sheds, carousel and casting moulds; • segment and culvert storage; • operation of a concrete batching plant adjacent to the shed; • boiler, aggregate bins, and consumables; • operation of an electric gantry crane to manage pre-cast storage area and loading of trucks;

Key features	Summary
	• materials storage; • laydown/hardstand area; • offices and site amenities; • loading and unloading and circulation space for heavy vehicles; and • on-site parking. An ancillary site establishment management plan will be prepared for this site in accordance with MCoA A17. The future use of the site beyond the operation of the Project would be determined by Boral and would be subject to separate approvals, as required.
Hours of construction	As part of the approval of MOD2, the ancillary facility would operate 24 hours per day, 7 days per week (24/7 operation will likely only be required for the segment pre-fabrication and segment logistics and transport from the site to support the continuous operation of the TBM).
Access arrangements	Access and egress will be via Railway Street.

2 CEMP Preparation

The CEMP for the Project has been prepared in accordance with the *Post-approval requirements for State significant projects: Management Plan Guidelines* (April 2020) and the ACCIONA Environment and Sustainability Statement (Appendix A3). It incorporates all requirements of the CSSI assessment documentation and all relevant licences, permits and approvals for the Project.

2.1 Internal consultation

The development of the CEMP and its Sub-plans and monitoring programs involved detailed review of the documentation by ACCIONA Environment Managers, Construction Project Managers, and the Project Director.

Following ACCIONA satisfaction of the documents the CEMP will then be submitted to TfNSW prior to commencement of work as outlined in G36 Clause 3.1. Once TfNSW are satisfied with the CEMP and Sub-plans, they will be submitted to the Environmental Representative (ER) for endorsement in accordance with Conditions C3 and C4 of the CoA.

2.2 External consultation

The CEMP Sub-plans detailed in Table 2-1 will be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan for this stage of the Project.

Details of all information requested by an agency during consultation will be provided to the Secretary as part of any submission of the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A5 of the CoA.

Table 2-1 Relevant government agencies to be consulted for each CEMP Sub-plan

Required CEMP Sub-plan	Relevant Government Agencies	Requirement
Traffic Transport and Access	Relevant council(s)	CoA C4 G36
Noise and Vibration	NSW Health, relevant council(s)	CoA C4 G36
Flora and Fauna	DPI Fisheries, DPE Water, BCS (formerly EHG), and relevant council(s)	CoA C4 G36
Air Quality	NSW Health, and relevant council(s)	CoA C4 G36
Soil and surface water	DPE Water, BCS, EPA, Sydney Water (if Sydney Water's assets are affected) and relevant council(s)	CoA C4 G36
Groundwater	DPE Water, BCS, EPA, Sydney Water (where it is proposed to discharge groundwater into Sydney Water's asset) and relevant council(s)	CoA C4 G36
Non-Aboriginal Heritage	Heritage NSW and relevant council(s)	CoA C4 G36

Required CEMP Sub-plan	Relevant Government Agencies	Requirement
Aboriginal Cultural Heritage	Heritage NSW	CoA C4 G36
Waste and Resource	N/A	G36

The construction monitoring programs in Table 2-2 must be prepared in consultation with the relevant government agencies identified for each monitoring program.

Table 2-2 Relevant government agencies to be consulted for construction monitoring programs

Required CEMP Monitoring Programs	Relevant Government Agencies
Noise and Vibration Monitoring Program	EPA
Air Quality Monitoring Program	EPA
Surface Water Monitoring Program	DPE Water, (Sydney Water if any Sydney Water assets are impacted), EPA
Groundwater Monitoring Program	DPE Water, EPA

2.3 Endorsement and Approval

The CEMP and Sub-plans (with the exclusion of the Waste and Resource Management Sub-plan) will require endorsement by the ER, and approval by the Planning Secretary of DPHI. As required by Condition C9 of the CoA, the CEMP Sub-plans must be submitted to the Secretary for approval along with, or subsequent to the submission of the CEMP but in any event, no later than one month before construction.

In accordance with Condition C3, C9 and C18 construction of the relevant phase must not commence until the CEMP and all Sub-plans and monitoring programs have been approved by the Planning Secretary and endorsed by the ER.

The CEMP, Sub-plans and monitoring programs, as approved by the Planning Secretary, including any minor amendments approved by the ER, must be implemented for the duration of the Project.

The CEMP will be made available to all personnel and subcontractors via the Project document control management system. Copies of the CEMP and Sub-plans will also be placed on the Project's website.

3 Objectives and Targets

3.1 Objectives

Environmental objectives and targets for the Project are based on the project performance outcomes outlined in Chapter 28 (Synthesis of the environmental impact statement), Section 28.6 of the EIS. Objectives and Targets related to specific Environmental management sub-plans are incorporated within their relevant Sub-plans.

A summary of performance outcomes is provided in Table 3-1 below.

Table 3-1 Environmental objectives and targets

Performance outcome	How performance will be addressed	Records
Consultation The project is developed with meaningful and effective engagement during project design and delivery.	• ACCIONA would respond to complaints in a timely and appropriate manner, to ensure all stakeholders' concerns are managed effectively and promptly.	Community Consultation Strategy (CCS) Complaints Register Audits
Health and safety The project avoids or minimises any adverse health impacts arising from the project. The project avoids, to the greatest extent possible, risk to public safety.	In respect to health and safety, the project has been developed such that: • Incidents and crashes and risks to public safety would be minimised during construction • The motorway design would achieve safe and efficient road user movements • Establishment and operation of ancillary facilities and construction sites would protect road users and public • The project avoids, to the greatest extent possible, risk to public safety • Hazardous materials within project areas would be managed to protect human health.	Safety Documentation Environmental Work Method Statement (EWMS) Audits Incident register
Place making and urban design The project design complements the visual amenity, character and quality of the surrounding environment. The project contributes to the accessibility and connectivity of communities.	In respect to place making and urban design, the project has been developed such that: • It would connect disconnected communities • The tunnel would relocate a significant volume of through traffic on surface arterials roads underground, improving urban amenity • Sympathetic urban design would integrate with adjacent and historical land uses • It would establish and operate ancillary facilities to minimise adverse impacts on the visual amenity of the local community • It would provide for new and improved active transport links.	Place Design and Landscape Plan

Performance outcome	How performance will be addressed	Records
Socio-economics, land use and property The project minimises adverse social and economic impacts and capitalises on opportunities potentially available to affected communities. The project minimises impacts to property and business and achieves appropriate integration with adjoining land uses, including maintenance of appropriate access to properties and community facilities, and minimisation of displacement of existing land use activities, dwellings and infrastructure.	In respect to socio-economics, land use and property, the project has been developed such that it would: • Minimise property acquisition • Manage the property acquisition process to minimise impacts to community • Minimise impacts to businesses during construction • Make provision for social infrastructure • Ease future congestion on the road network, supporting future urban regeneration • Avoid barriers and division of the community through the tunnel solution.	Detailed Design Place Design and Landscape Plan Complaints Register

3.2 Targets

The following targets have been established for the management of environmental impacts during the Project construction activities:

- Ensure full compliance with the relevant legislative requirements, MCoA and revised environmental management measures (REMMs).
- No regulatory infringements (Penalty Infringement Notices or prosecutions).
- Inspection checklist on time and close out rate within agreed timeframes.
- Implement, and continually improve, an EMS that meets the requirements of AS/NZS ISO 14001.
- Regularly identify and implement opportunities for improvement.
- Provide training that communicates key environmental issues and management controls.

4 Environmental Management System Overview

4.1 Environmental Management System overview

The Project is based on the ACCIONA Corporate EMS which is certified under the ACCIONA ISO 14001:2015 accreditation and comprises a suite of documentation (including this Plan) which is supported by CEMP sub-plans, contract management plans and other cascading environmental documentation including procedures and protocols as relevant to the activity or associated environmental risk.

The EMS provides a governance framework to support management of the environmental requirements and defines how ACCIONA will minimise environmental risk and meet the environmental outcomes through the design and construction of the Project.

This CEMP is the overarching management plan for a suite of environmental management documents for the Project. Several environmental management Sub-plans support this CEMP. These documents address requirements of the relevant CoA and other measures identified in the CSSI assessment documentation. The full list of CEMP documents and their applicability to each Project stage is summarised in Table 4-1.

4.2 Relationship between this CEMP and other EMS documents

Table 4-1 provides an overview of the CEMP sub-plans and other management plans that most closely relate to the CEMP and form the CEMP framework. This suite of documents identifies the controls that will be implemented during construction.

These documents have been prepared in response to environmental requirements and have been prepared in accordance with CoAs, REMMs, and TfNSW plans, procedures, specification and requirements where required. Other plans that will interface with the CEMP to ensure the Project environmental requirements are implemented include safety management plans, project management plans, construction plans and design reports.

Table 4-1 CEMP Sub-plan framework

Management Plan and/or Construction Monitoring Program	Source requirement	Associated Plan or Procedure	Relevant documents outside the CEMP
Traffic, Transport and Access Management Sub-plan	MCoA C4,	Parking Access Strategy	Road Occupancy Licences Road Safety Audits Road Dilapidation Surveys
Noise and Vibration Management Sub-plan	MCoA C4, C1; REMM CNV1; G36	Out of Hours Work Protocol (including Out of Hours Permit) (for works not requiring an EPL) Noise and Vibration Monitoring Program Blasting Monitoring Program (if required) Land Use Survey	Blast Management Strategy (if required) Construction Noise and Vibration Impact Statements Condition Survey Reports Community Communications Plan/s Noise Insulation Program (for the Warringah Freeway Upgrade)
Flora and Fauna Management Sub-plan	MCoA C4; G36	Pre-clearance inspection / Permit Fauna Handling and Relocation Procedure Tree Register Microbat Monitoring Program Weed Management Protocol Unexpected Threatened Species Protocol Fauna Relocation Procedure for Dewatering on WHT13.	-
Air Quality Management Sub-plan	MCoA C4, C11; G36	Air Quality Monitoring Program	-

Management Plan and/or Construction Monitoring Program	Source requirement	Associated Plan or Procedure	Relevant documents outside the CEMP
Soil and Surface Water Management Sub-plan	MCoA C4, C11; G36, G38 Spec	Surface Water Monitoring Program Erosion and Sediment Control Plans	Dewatering Permit Water Pollution Impact Assessment Stormwater Drainage Report
Groundwater Management Sub-plan	MCoA C4, C11 REMM SG20	Groundwater Monitoring Program	Groundwater Modelling Report Geotechnical and Hydrogeological Model Groundwater Monitoring Report
Non-Aboriginal Heritage Management Sub-plan	MCoA C4, G36	Unexpected Finds and Human Remains Procedure	Archival Recording Final Excavation Report Archaeological Research Design and Excavation Methodology Artefact Conservation Management Plan
Aboriginal Cultural Heritage Management Sub-plan	MCoA C4, G36	Unexpected Finds and Human Remains Procedure	Artefact Conservation Management Plan
Contaminated Land Management Sub-plan (included into the SSWMP)	G36	Soil and Surface Water Management Plan Unexpected Contaminated Land and Asbestos Finds Procedure Acid Sulfate Soils Management Procedure	Detailed Site Investigation Report/s Remedial Action Plan/s Validation Report/s Site Audit Statement/s

Management Plan and/or Construction Monitoring Program	Source requirement	Associated Plan or Procedure	Relevant documents outside the CEMP
Waste and Resource Management Sub-plan	G36	Waste Tracking Register Waste Disposal Permit Waste Disposal Site Register Water Reuse Strategy	Sustainability Management Plan Sustainability Strategy
Clearing and Grubbing Plan	G40	Flora and Fauna Management Plan.	-

4.3 Environment and Sustainability Policy

The Project Environment and Sustainability Statement is provided in Appendix A3 and has been developed in accordance with Section 5.2 of ISO 14001:2015 to demonstrates the unwavering commitment to environmental protection and consideration in our service provision.

The environmental policy is displayed at the site office and communicated to staff and other interested parties via inductions and ongoing awareness programs.

4.4 Document Accessibility

This CEMP will be available to all personnel and subcontractors via the Project document control management system. An electronic version of the CEMP is available on the project website, in accordance with MCoA B15, as well as copies of the following documents, which will published prior to the applicable works commencing:

- Information on the current implementation status of the CSSI.
- A copy of the approval documents (listed in MCoA A1, including the EIS & Response to Submissions report) and any documentation relating to any modifications made to the CSSI or the terms of the approval (Western Harbour Tunnel and Warringah Freeway Upgrade TBM solution for crossing Sydney Harbour– Modification 2 & Response to Submissions report).
- A copy of the planning approval (CSSI8863) in its original form, a current consolidated copy of the approval (that is, including any approved modifications to its terms), and copies of any approval granted by the Minister to a modification of the terms of this approval.
- A copy of each licence or permit required and obtained in relation to the CSSI.
- A current copy of the final version of each document required under the terms of this approval.
- A copy of the audit reports required under this approval.

Where a MCoA requires a document to be prepared prior to commencement of any work or construction, a current copy of the relevant document will also be published on the Project website before the activity is undertaken

Confidential information, which may include the personal contact details, location of threatened species, Aboriginal objects or places and personnel contact details, will be redacted from all documents made available to the public.

5 Construction Planning and Governance

This CEMP sits within the framework of the ACCIONA corporate EMS certified to ISO14001:2015, and as discussed in Section 4.2 is supported by a series of environmental sub-plans, procedures and internal permits to maintain a high level of governance with Project environmental requirements.

Where appropriate, the WHT environmental requirements will be integrated into site-specific documentation as discussed in the following sections. The EMS includes subscription to an environmental legislation monitoring service (Enviro Matters Environmental News Alerts), to ensure the Project works remain up to date with changing environmental legislation or other requirements.

The Environment Manager is responsible for reviewing the updates to determine the relevance of the change. When necessary, this CEMP, Sub-plans and monitoring programs, and other management plans will be amended to ensure compliance. Regulatory approvals will be obtained or amended as necessary and work practices altered to ensure compliance.

All relevant ACCIONA personnel will be advised of the change. The EMS is supported by project risk assessments, regulatory and the Project environmental requirements and site-specific WHT documentation.

5.1 Environmental Risk Assessment Workshop

A Project environmental risk assessment workshop focusing on WHT Stage 3B activities was held on 18 January 2023 involving the ER, AA and representatives from:

- TfNSW
- North Sydney Council
- Inner West Council.

Similarly, a Project environmental risk assessment workshop focusing on WHT Stage 3C activities was held on 28 August 2023 involving the ER and representatives from:

- TfNSW
- North Sydney Council
- Inner West Council.

A representative from Penrith City Council declined the meeting request for the Project environmental risk assessment workshop held on 28 August 2023.

Each activity was assessed to identify the relevant steps and the associated environmental hazards, initial risk levels, mitigation measures to avoid, manage and/or minimise the risks (including requirements from the TfNSW Environmental Specifications, MCoA and REMMs where relevant), and residual risks following implementation of identified measures. Each of these items were documented in an environmental aspects and impacts register (Appendix A2).

Where residual risk is assessed as high, or where otherwise specified as mandatory, an Environmental Work Method Statement (EWMS) will be developed for that activity (refer to section 5.3).

Following the workshop, the environmental risk assessment will be regularly reviewed and an ongoing risk analysis for the Project will be conducted during management reviews as detailed in Section 5.17.

5.2 Regulatory requirements

5.2.1 Legislation

A register of legal and other requirements for the Project is contained in Appendix A1. The register will be prepared prior to each stage of construction and maintained by the ACCIONA Environment

Manager. This register is a live document and will reviewed as part of management reviews (Section 5.17). Should updates to CEMP be required following management reviews, the most recent version of this register will be included.

Any updates to the legal requirements register will be communicated to the wider project team, including subcontractors where necessary through toolbox talks, specific training and other methods detailed in Section 5.8 of this CEMP.

5.2.2 Approvals, permits and licences

A number of approvals, permits and licences have and/or will be obtained for the Project. The EIS recognised that the following approvals and licences are required for the Project:

- An environment protection licence for road construction and road tunnel emissions under Chapter 3 of the *Protection of the Environment Operations Act 1997 (NSW)*. In accordance with section 5.24 of the *Environmental Planning and Assessment Act 1979 (NSW)*, such a licence cannot be refused for an approved project and is to be substantially consistent with any approval under Division 5.2.

In accordance with MCoA A2, all necessary licences, permits and approvals required for the development of the Project will be obtained and maintained as required throughout the life of the Project. No condition of the Project Approval removes the obligation for TfNSW or ACCIONA to obtain, renew or comply with such necessary licences, permits or approvals except as provided under Section 5.23 of the EP&A Act.

Appendix A1 includes all relevant environmental approvals, permits and licences and will be maintained as described above.

5.3 Environmental Work Method Statements

Environmental Work Method Statements (EWMS) are prepared to manage and control all high-risk activities and others that have the potential to negatively impact on the environment. EWMS will be prepared prior to the commencement of relevant construction activities and will incorporate relevant mitigation measures and controls, including those from relevant management Sub-plans. They also identify key procedures to be used concurrently with the EWMS. EWMS are specifically designed to communicate requirements, actions, processes and controls to construction personnel using plans, diagrams and simply written instructions.

EWMS will be prepared progressively in the lead up to and throughout construction in consultation with relevant members from the Project team, and concurrence provided by the TfNSW Environment Manager and/or the ER where necessary.

The EWMS will be developed in consultation with the relevant site management personnel and where required, regulatory agencies, to ensure that all issues are addressed, methods and activities are practical, and all personnel are aware of their commitments and responsibilities.

EWMS will be prepared for high-risk activities including those outlined in Section 3.2.4 of the G36 Specification and those identified through the Environmental Risk Assessment Workshop (refer to Section 5.1 above).

The EWMS will include at least the following elements:

- Description of the work activity, including any plant and equipment to be used
- Outline of the sequence of tasks for the activity, including interfaces with other construction activities
- Identification of any environmental and/or socially sensitive areas, sites or places
- Identification of potential environmental risks/impacts due to the work activity
- Mitigation measures to reduce the identified environmental risk, including assigned responsibilities to site management personnel
- Process for assessing the performance of the implemented mitigation measures.

All construction personnel and sub-contractors undertaking a task governed by an EWMS must participate in training on the EWMS, and acknowledge that they have read and understood their obligations by signing an attendance record prior to commencing work.

Monitoring, inspections and auditing of compliance with EWMS will be undertaken to ensure that all mitigation measures are being implemented appropriately (refer to section 5.12).

5.4 Sensitive Area Maps

To assist pre-construction planning and on-site construction management Sensitive Area Maps (SAMs) will be prepared prior to the commencement of construction. The SAMs will be prepared in stages as the works progress in each precinct.

SAMs will be reviewed and updated where there is a significant change in design, construction methodology or surrounding environment. A copy of the initial SAMs are provided in Appendix A4 for activities associated with WHT 3B and 3C.

SAMs will also be reviewed as part of management reviews (Section 5.17). Should updates to CEMP be required following management reviews, the most recent version of this register will be included, however the SAMs are considered a live document and this CEMP will not be updated with every iteration.

5.5 Environmental Management in Design

There are many MCoA obligations that require technical input from design and technical engineers. These requirements will be communicated to the Design team to ensure full knowledge of Project design requirements, and will be reviewed as part of the Design Review process which includes internal and TfNSW review.

Each design package will contain specific design report that provides a compliance table detailing how the design has addressed each of the environmental requirements relating to that design scope. The compliance matrix is ultimately accepted by the Design Consultant, ACCIONA and the Independent Certifier that the design complies with the MCoA. This process is well established and provides full traceability of how the condition is address through the design, construction and operational phase of the asset

5.6 Erosion and sediment control plans

Progressive Erosion and Sediment Control Plans (PESCPs) are planning documents that identify the site layout and the approximate location of erosion and sediment control structures onsite. They cover all construction stages from initial vegetation clearing through to rehabilitation when erosion and sediment control are no longer required and are removed. PESCPs may be produced in conjunction with EWMS and SAMs to provide detailed site-specific environmental mitigation measures. Further detail on PESCPs is included in the Soil and Surface Water Management Plan.

5.7 Roles and responsibilities

The key environmental management roles and responsibilities for the construction phase of the Project are described below. The relationship of key roles and organisational interactions is shown in Figure 5-1. Key roles are described in the sections further below.

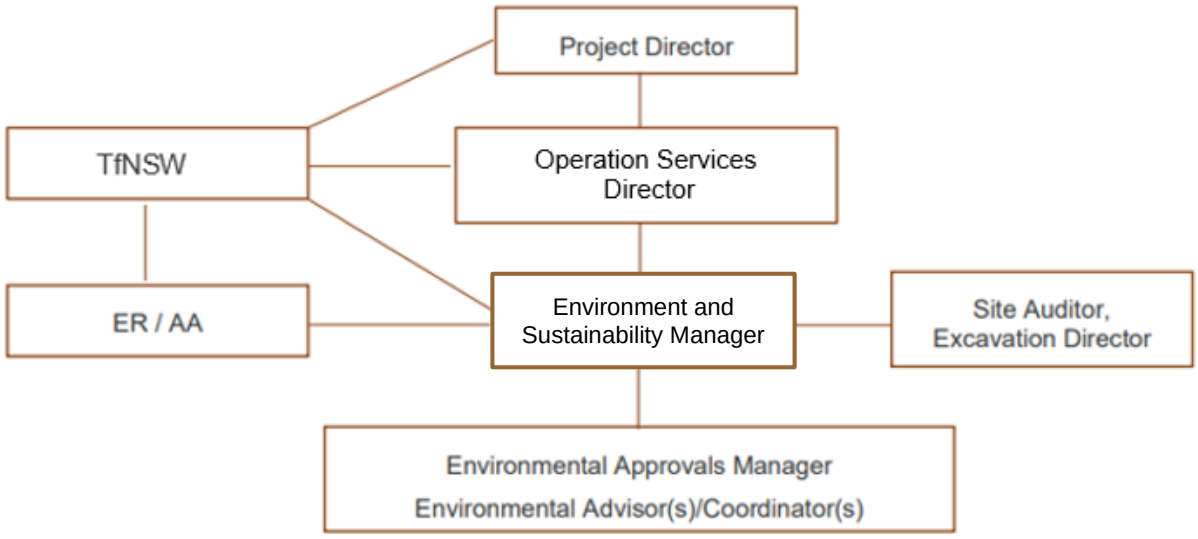

Figure 5-1 Management structure

5.7.1 External / independent roles

Environmental Representative (ER)

Work will not commence until an ER has been approved by the Planning Secretary. The ER has been approved for Stage 3B and 3C. The ER must be a suitably qualified and experienced person who was not involved in the preparation of the documents listed in MCoA and is independent from the design and construction personnel for the CSSI and those involved in the delivery of it. A detailed description of the authority of the ER is provided in MCoA A27, and the environmental responsibilities of the ER include but are not limited to the following:

- Receive and respond to communication from the Planning Secretary in relation to the environmental performance of the CSSI
- Consider and inform the Planning Secretary on matters specified in the terms of the Project approval
- Consider and recommend to TfNSW any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community
- Review documents identified in Conditions A10, A17, C1, C4 and C11 of the MCoA and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this approval and if so:
  - (i) make a written statement to this effect before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary); or
  - (ii) make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Planning Secretary / Department of Planning, Housing and Infrastructure (DPHI) for information or are not required to be submitted to the Planning Secretary/DPHI)
- Regularly monitor the implementation of the documents listed in Conditions A10, A17, C1, C4 and C11 of the MCoA to ensure implementation is being carried out in accordance with the document and the terms of the Project approval
- As may be requested by the Planning Secretary, help plan or attend audits of the development commissioned by DPHI including scoping audits, programming audits, briefings and site visits, but not independent environmental audits required under Condition A38 of the MCoA
- As may be requested by the Planning Secretary, assist in the resolution of community complaints

- Consider or assess the impacts of minor ancillary facilities comprising lunch sheds, office sheds and portable toilet facilities as required by Condition A19 of the MCoA
- Consider any minor amendments to be made to the Ancillary Site Establishment Management Plan, CEMP, CEMP Sub-plans and monitoring programs without increasing impacts to nearby receivers or that comprise updating or are of an administrative nature, and are consistent with the terms of this approval and the CEMP, CEMP Sub-plans and monitoring programs approved by the Planning Secretary and, if satisfied such amendment is necessary, approve the amendment. This does not include any modifications to the terms of the Project approval
- Prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, an Environmental Representative Monthly Report providing the information set out in the Environmental Representative Protocol under the heading "Environmental Representative Monthly Reports." The Environmental Representative Monthly Report must be submitted within seven days following the end of each month for the duration of the ER's engagement for the CSSI, or as otherwise agreed by the Planning Secretary
- Assess the impacts of activities as required by the Low Impact Works definition.

ACCIONA will provide the ER documentation as required under MCoA A28. It is noted that an Ancillary Site Establishment Management Plan is not required for this stage of works.

Acoustics Advisor (AA)

Work or any activities generating noise in excess of 5 dB(A) above the 'Noise affected' Noise Management Levels must not commence until an Acoustics Advisor (AA) has been approved by the Planning Secretary. The AA has been approved for Stage 3B and 3C. The AA must be a suitably qualified and experienced AA in noise and vibration management, who is independent of the design and construction personnel. The AA must be nominated by the Proponent and engaged for the duration of work (as required by MCoA A29) and for no less than six months following completion of construction of the CSSI.

In accordance with MCoA A31, ACCIONA will cooperate with the AA by:

a) providing access to noise and vibration monitoring activities as they take place

b) providing for review of noise and vibration plans, assessments, monitoring reports, data and analyses undertaken

c) considering any recommendations to improve practices and demonstrating, to the satisfaction of the AA, why any recommendation is not adopted.

The Proponent may nominate additional suitably qualified and experienced persons to assist the lead AA for the Planning Secretary's approval.

In accordance with MCoA A34, the AA must:

a) receive and respond to communication from the Planning Secretary in relation to the performance of the Project in relation to noise and vibration

b) consider and inform the Planning Secretary on matters specified in the terms of this approval relating to noise and vibration

c) consider and recommend, to the Proponent, improvements that may be made to avoid or minimise adverse noise and vibration impacts

d) review all proposed night-time works to determine if sleep disturbance would occur and recommend measures to avoid sleep disturbance or appropriate additional alternative mitigation measures

e) review all noise and vibration documents required to be prepared under the terms of this approval and, should they be consistent with the terms of this approval, endorse them before submission to the Planning Secretary (if required to be submitted to the Planning Secretary) or before implementation (if not required to be submitted to the Planning Secretary)

f) regularly monitor the implementation of all noise and vibration documents required to be prepared under the terms of this approval to ensure implementation is in accordance with what is stated in the document and the terms of this approval

g) notify the Planning Secretary of noise and vibration incidents in accordance with Conditions A43 and A45 of this approval

h) in conjunction with the ER, the AA must:

   i. as may be requested by the Planning Secretary or Community Complaints Mediator (required by Condition B12), help plan, attend or undertake audits of noise and vibration management of the CSSI including briefings, and site visits,

   ii. in the event that conflict arises between the Proponent and the community in relation to the noise and vibration performance of the CSSI, follow the procedure in the Community Communication Strategy approved under Condition B2 to attempt to resolve the conflict, and if it cannot be resolved, notify the Planning Secretary

   iii. consider relevant minor amendments made to the Ancillary Site Establishment Management Plan, CEMP, relevant sub-plans and noise and vibration monitoring programs that require updating or are of an administrative nature, and are consistent with the terms of this approval and the management plans and monitoring programs approved by the Planning Secretary and, if satisfied such amendment is necessary, endorse the amendment, (this does not include any modifications to the terms of this approval)

   iv. review the noise impacts of minor construction ancillary facilities, and

   v. prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, a Monthly Noise and Vibration Report detailing the AA's actions and decisions on matters for which the AA was responsible in the preceding month. The Monthly Noise and Vibration Report must be submitted within seven days following the end of each month for the duration of the AA's engagement for the CSSI, or as otherwise agreed by the Planning Secretary.

Site Auditor

Prior to, during and following remediation a NSW EPA-accredited Site Auditor is required to certify that the Remediation Action Plan is appropriate and that the site can or has been made suitable for the proposed use. The Remedial Action Plan must be implemented and any changes to the Remedial Action Plan must be approved in writing by the NSW EPA accredited Site Auditor.

Further detail regarding the roles of the Site Auditor is included in the Soil and Surface Water Management Plan.

Air Quality Independent Reviewer (AQIR)

An AQIR must be engaged and approved by the Planning Secretary prior to the finalisation of the detailed design. An AQIR has been approved for the Project and their appointment made publicly available

The AQIR is independent of the project design and construction personnel and has appropriate skill and experience in road tunnel ventilation design, air quality monitoring design, and reporting.

Prior to commencing operation, the AQIR(s) must review and endorse the adequacy of the following as per the requirements of Conditions E11, E20, E22, E27, E28, E29, E33 and E36 for in-tunnel ventilation and ventilation outlet design; and for air quality monitoring.

5.7.2 TfNSW Roles

TfNSW Environment Manager

The environmental responsibilities of the TfNSW Environment Manager include, but are not limited to, the following:

- Review any environmental management plans and related documents prepared for the Project

- Review and consider minor Project refinements that are consistent with the Project environmental assessment in accordance with the Roads and Maritime Division 5.2 Environmental Assessment Procedure
- Monitor the environmental performance of the Project in relation to TfNSW requirements
- Provide guidance and where appropriate, monitor compliance with DPHI post approval document submission requirements.

TfNSW Representative

The environmental responsibilities of the TfNSW Representative include (but are not limited to) the following:

- Evaluate and advise on compliance with TfNSW environmental requirements
- Review and approve any environmental management plans for the Project or related activities that are not required to be approved by the Minister of DPHI.

5.7.3 ACCIONA Roles

ACCIONA Project Director

The environmental responsibilities of the ACCIONA Project Director include (but are not limited to) the following:

- Be an emergency contact and available to be contacted by EPA and TfNSW Representative on a 24-hour basis
- Ensure all works are planned and executed to ensure compliance with relevant regulatory and Project requirements
- Ensure the requirements of this CEMP are fully implemented and that environmental requirements are not secondary to other construction requirements
- Endorse and support the Project Environment and Sustainability Statement attached in Appendix A3
- Provide adequate resources (personnel, financial and technological) to ensure effective development, implementation and maintenance of this CEMP
- Ensure that resources are made available to in order to implement the Sustainability Management Strategy
- Champion sustainability at the highest level of project governance
- Stop work immediately if an unacceptable impact on the environment has or is likely to occur.

ACCIONA Superintendent

The environmental responsibilities of the Superintendent include (but are not limited to) the following:

- Communicate with all personnel and sub-contractors regarding compliance with the CEMP and site-specific environmental issues
- Ensure all site workers attend an environmental induction prior to the commencement of works
- Coordinate the implementation of the CEMP
- Coordinate the implementation of close out of actions from internal environmental and/or ER inspections
- Co-ordinate the implementation and maintenance of pollution control measures
- Identify resources required for implementation of the CEMP

- Support the ACCIONA Environment Manager in achieving environmental objectives, including on ground implementation of the EWMS and Progressive Erosion and Sediment Control Plans (PESCP)
- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the ACCIONA Environment Manager / Environmental Coordinator
- Co-ordinate action in emergency situations and allocate required resources
- Asist in the delivery of the Sustainability Management Strategy
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the ACCIONA Project Manager and Environment Manager.

ACCIONA Environment and Sustainability Manager

For the purpose of the CEMP, the ACCIONA Environment and Sustainability Manager refers to the overarching and lead environmental management position. The environmental responsibilities of the ACCIONA Environment and Sustainability Manager include, but are not limited to, the following:

- Overall accountability of the implementation of the CEMP plans on the Project.
- Be an emergency contact and available to be contacted by EPA and TfNSW Representative on a 24-hour basis
- Act as the main point of contact for the ER, AA, TfNSW, ER and approval authorities
- Oversee the liaison with the ER and AA as required including complaint investigation response and facilitating site inspections and close out of actions raised by the ER and AA during their site visits
- Review subcontractors' performance and compliance with ACCIONA environmental requirements, including assessing their environmental capabilities and overseeing the submission of their environmental documents
- Ensure regular inspections, observations, monitoring and audits are conducted to check the effectiveness of controls and that compliance is maintained
- Identify, assess and leverage opportunities to achieve sustainability outcomes
- Report to the ACCIONA Project Director and other senior managers on the performance and implementation of the CEMP and EPL
- Stop activities directly or via delegation through members of their team, where there is an actual or immediate risk of harm to the environment, or to prevent environmental non-conformances, and advise the ACCIONA Project Director and Superintendent
- Drive Sustainability across the project.

ACCIONA Environment Coordinators/Advisers

Reporting to the Environment and Sustainability Manager, the responsibilities of the ACCIONA Environmental Coordinators/Advisers includes (but is not limited to) the following:

- Assist the relevant ACCIONA Environmental and Sustainability Managers to prepare, implement, maintain and review this CEMP and associated documents in accordance with all relevant requirements
- Assist all site staff with issues concerning Project environmental matters and act as the first source of environmental advice and information for the ACCIONA design and construction teams
- Develop PESCP in consultation with the ACCIONA Superintendent, Project / Site Engineers, foreman and other relevant site personnel, as required
- Preparation of EWMS/SAMs

- Manage the day-to-day environmental elements of construction
- Assist in identifying environmental risks
- Undertake regular site inspections, carry out monitoring activities and complete site checklists and audits as required and in accordance with this CEMP, EPL and Sub-plans
- Respond to incidents and manage investigations as directed by the ACCIONA Environment Manager
- Assist in developing training programs regarding environmental requirements and deliver where required, including delivery of the environmental component of toolbox talks
- Assist Environment and Sustainability Manager to liaise with the ER and AA as required including facilitating site inspections and close out of actions raised by the ER and AA during their site visits
- Maintain regular communication with the Environment Manager regarding environmental performance and conformance.

ACCIONA Communications and Stakeholder Director

The environmental responsibilities of the ACCIONA Communications and Stakeholder Director include (but are not limited to) the following:

- Ensure that all community consultation activities are carried out
- Report any environmental issues to the relevant ACCIONA Environment Manager raised by stakeholders or members of the community
- Support the ACCIONA Environment Manager in the implementation of the Sustainability Strategy
- Communicate general Project progress, performance and issues to external stakeholders including the community (including relevant councils, government authorities, adjoining affected landowners and businesses, and others directly impacted by the CSSI) and ensure stakeholders are informed of upcoming works
- Develop, implement and maintain a communication strategy to facilitate communication between ACCIONA, ER, AA, TfNSW staff and DPHI
- Develop, implement and maintain a communication strategy to facilitate communication between the proponent and the community
- Maintain the 24-hour complaints hotline
- Maintain the Complaints Register located in the Community Consultation Strategy and ensure environmental complaints and enquiries regarding construction works are recorded and responded to appropriately.

Refer to the Community Consultation Strategy for more information about this role.

ACCIONA Project/Site Engineers

The environmental responsibilities of the ACCIONA Project / Site Engineers include (but are not limited to) the following:

- Provide input into the preparation of environmental planning documents as required
- Ensure that instructions are issued, and adequate information provided to employees that relate to environmental risks on site
- Ensure that the works are carried out in accordance with the requirements of the CEMP, EPL and supporting documentation, including the implementation of all appropriate environmental controls, mitigation and management measures
- Identify any environmental risks

- Identify resource needs for implementation of CEMP and EPL requirements and related documents
- Implement corrective or preventative actions as required to fulfil the requirements of this plan
- Take action in the event of an emergency and allocate the required resources to minimise the environmental impact
- Implement sustainability actions as allocated to them by the ACCIONA Environment and Sustainability Manager
- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the ACCIONA Superintendent and relevant Environment Manager.

ACCIONA Foreman

The environmental responsibilities of the ACCIONA Foreman include (but are not limited to) the following:

- Undertake any environmental duties as defined by the ACCIONA Superintendent or Project /Site Engineer
- Control field works and ensure appropriate environmental controls, mitigation and management measures are implemented and maintained effectively
- Where required, undertake environmental risk assessment of works prior to commencement
- Ensure site activities comply with EWMS and relevant records are kept
- Ensure all site workers are site inducted prior to commencement of works
- Attend to any spills or environmental incidents that may occur on site and report environmental incidents and complaints immediately
- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the Superintendent
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the ACCIONA Project Director, Design and Construction Director, Superintendent or Environment Manager
- Implement sustainability actions as allocated to them by the ACCIONA Environment and Sustainability Manager.

ACCIONA Wider project team (including sub-contractors)

The environmental responsibilities of all other members of the Project team, including sub-contractors, include the following:

- Comply with the relevant requirements of the CEMP, EPL or other environmental management guidance as instructed by a member of the Project's management
- Participate in the mandatory Project / site induction program
- Report any environmental incidents to the foreman immediately or as soon as practicable if reasonable steps can be adopted to control the incident
- Undertake remedial action as required to ensure environmental controls are maintained in good working order
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the ACCIONA Project Director, Design and Construction Director, Superintendent or Environment Manager
- Implement sustainability actions as allocated to them by the ACCIONA Environment or Sustainability Manager.

5.7.4 Specialist Consultants

ACCIONA will use specialist environmental consultants/subcontractors to support the ACCIONA environment and approvals team. Table 5-1 provides a list of likely specialist environment, sustainability and planning consultants, and their proposed scope of work on the Project. This list is not intended to be exhaustive and additional resources and subject matter experts may be utilised as required.

Table 5-1 Specialist consultants and sub-contractors

Discipline/ Specialist	Scope of work
Noise and Vibration	Noise and vibration modelling, prepare CNVIS, and undertake noise and vibration monitoring, and Land use surveys
Contamination/ waste classification	Soil and groundwater contamination and its management, remediation action plans
Planning consultants	Preparation of consistency assessments, modification documentation, or any other planning submission documentation
Heritage specialist	Heritage advice, archaeology management, heritage documentation and reporting
Sustainability advice	Sustainability advice, mentoring and technical ISC support
Soil Conservationist	Site-based practical advice on sediment and erosion control, review of erosion and sediment control plans

5.8 Selection and management of subcontractors

Subcontractors working on the Project are required to work in accordance with the approved CEMP and the ACCIONA EMS processes. Monitoring of environmental performance of subcontractors and their compliance will be undertaken over the length of the contract, as part of the processes described within this document. The environmental requirements of the Project will be summarised in contract documentation and all subcontractors will be required to undergo a Project Induction prior to commencement of works.

5.9 Competence, training and awareness

To ensure that this CEMP is effectively implemented, each level of management is responsible for ensuring that all personnel reporting to them are aware of the requirements of this CEMP. The ACCIONA Environment Manager will coordinate the environmental training in conjunction with other training and development activities (e.g. safety). A Training Register will be maintained throughout the construction of the Project to ensure evidence of training is maintained, and gaps in training can be identified. The following training mechanisms will be applied to all relevant project personnel as relevant, including subcontractors.

5.9.1 Induction

All personnel are required to attend a compulsory Project induction that includes an environmental component prior to commencement work upon the Project. This is to ensure all personnel involved in the Project are aware of the requirements of and implement the management described in the CEMP.

Long term site roles will be required to attend an additional Site Induction, which will focus more specifically upon site and activity specific environmental aspect, impacts and mitigation. Short-term visitors entering the site (such as regulators) will be required to undertake a visitor's induction and be accompanied by inducted personnel at all times. Temporary visitors to site for purposes such as deliveries will be required to be accompanied by inducted personnel at all times.

The environmental component of the induction must cover all elements of the CEMP and per Section 3.5 of the G36 Specification will include as a minimum:

- Purpose and objectives of the CEMP.
- Requirements of due diligence and duty of care.
- Key conditions of environmental licences, permits and approvals.
- Potential environmental emergencies and the emergency response procedures.
- Reporting and notification requirements for pollution and other environmental events (such as unexpected finds).
- High-risk activities and associated environmental safeguards, e.g. earthworks, vegetation clearing, night works, operation and maintenance of concrete washouts, chemical management and maintenance of plant and equipment).
- Environmentally sensitive areas.

The Environment Manager may authorise amendments to the environmental content of the Project or Site induction at any time. Possible reasons for changes to the induction may be Project modifications, legislative changes or amendments to this CEMP or related documentation.

5.9.2 Toolbox talks, training and awareness

Toolbox talks will be utilised to raise awareness and educate personnel on aspects of construction, including environmental issues. The toolbox talks are used to ensure environmental awareness continues throughout construction.

Toolbox talks will include details of EWMSs for relevant personnel. Toolbox talks will also be tailored to specific environmental issues relevant to upcoming works or site-specific sensitivities.

Relevant environmental issues may include:

- Erosion and sedimentation control
- Dewatering
- Hours of work
- Emergency and spill response
- Dust control
- Noise and Vibration
- Housekeeping and waste
- Project and clearing limits
- General procedures for site preparation prior to significant rain events
- Out of hours work approval processes
- Working outside of standard construction hours (including monitoring of noise and light spill)
- Dealing with members of the public and/or stakeholders

Toolbox talk attendance is mandatory and attendees of toolbox talks are required to sign an attendance form and the records maintained.

Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. Topics covered may include those detailed above, or others deemed necessary in the lead up to or during construction.

5.9.3 Daily Pre-Start Meetings

The pre-start meeting is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant to the day's work.

The Foreman will conduct a succinct daily pre-start meeting with the site workforce before the commencement of work each day (or shift) or where changes occur during a shift.

The Foreman will also ensure that any potential environmental risks or updates are communicated to the Foreman on the next shift prior to shift changeover.

The environmental component of pre-starts will be determined by relevant foreman with input from environmental personnel and may include any environmental issues that could potentially be impacted by, or on, the day's activities. All attendees will be required to sign on to the pre-start and acknowledge their understanding of the issues explained.

5.9.4 Targeted Training

Targeted environmental training will be provided to individuals or groups with a specific authority or responsibility for environmental management, those undertaking an activity with a high risk of environmental impact or to ensure the competency of the relevant project team members is appropriate for their responsibilities. Where practicable environmental training will be accredited training and recognition of prior learning will be considered via the Workforce Development framework. Training will generally be delivered by external providers organised by the Workforce Development team and will require prior concurrence of the Workforce Development & Industry Participation Manager.

5.10 Communication

5.10.1 Internal Communication

Clear lines of communication throughout all levels and functions (e.g. management, staff and subcontracted service providers), are key to minimising environmental impacts and achieving continual improvements in environmental performance.

The ACCIONA project environmental team will meet regularly to discuss any issues with environmental management on site, any amendments to plans that might be required or any new / changes to construction activities. Regular meetings may also be scheduled with the ER, AA and TfNSW environmental staff. The purpose of these meetings would be to communicate ongoing environmental performance and to identify any issues to be addressed.

In addition, the ACCIONA project environmental team members will participate, as required, in toolbox talks, daily pre-start meetings or activity specific pre-start meetings to communicate environmental performance, management or issues with the wider construction team. This forum will provide an opportunity for the environment team members to advise on any upcoming sensitive environmental matters for future work areas and to receive feedback from on-site personnel.

Further internal communications regarding environmental issues and aspects will be through awareness training as described in Section 5.9.

5.10.2 Stakeholders liaison

The ACCIONA Environment Manager will be the authorised contact person for communications with relevant stakeholders i.e. TfNSW, DPHI and the EPA on environmental matters. Liaison will include reporting on the ongoing environmental performance, any key environmental matters on the Project to these stakeholders. Relevant government agencies will be consulted throughout construction as required.

In accordance with TfNSW Specification G36 requirements, two persons have been nominated as available to be contacted by the EPA on a 24-hour basis, being the ACCIONA Project Director and Environment Manager. These two ACCIONA staff have the authority to take immediate action to

shut down any activity, or to affect any pollution control measure, as directed by an authorised officer of the EPA.

In accordance with the TfNSW Specification G36, a report will be prepared on each occasion a Project site is visited by EPA when it is not part of a scheduled routine environmental inspection, and the TfNSW will be immediately notified. The report will be provided to TfNSW within one working day of the visit. In accordance with the MCoA A43, if statutory notification is given to the EPA as required under the POEO Act in relation to the CSSI, such notification must also be provided to the Secretary within 24 hours after the notification was given to the EPA.

5.10.3 Community liaison and/or notification

A Community Consultation Strategy (CCS) has been developed for the Project in accordance with MCoA B1 to B5 to provide mechanisms to facilitate communication between TfNSW, the Project Team, relevant councils and the local community on the construction-related and environmental matters.

Where out-of-hours works are required, community notification will be undertaken in accordance with the CCS, EPL and/or the Out of Hours Work Procedure.

5.10.4 Complaints management

A Complaints and Enquiries Procedure, consistent with AS 4269: Complaints Handling, has been developed for the Project, in accordance with the requirements of MCoA B7.

All community inquiries and complaints related to the construction activities will be referred to the 24-hour community information line (1800 931 189). A postal address (Transport for NSW Locked Bag 928, North Sydney NSW 2059) and email address (whtbl@transport.nsw.gov.au) has been provided for receipt of complaints and enquiries. The telephone number, the postal address and the email address was published in newspapers circulating in the local area prior to the commencement of construction and is provided on the Project website.

Records of all complaints received will include the following details:

- Date and time of the complaint
- Method by which the complaint was made
- Any personal details of the complainant
- The nature of the complaint
- Action taken in relation to the complaint and any follow up
- If no action taken, reasons why.

This information will be included in a Complaints Register. The information contained within the register will be made available to the Minister on request.

Attempts will be made to resolve all complaints in accordance with the CCS. An initial response to complaints will be provided and where applicable a further detailed response, including steps taken to resolve the issue(s) that lead to the complaint, will be provided. All complaints will be closed out in the stakeholder database. At all times the stakeholder will be kept informed of when they will receive a response.

The Environment Manager will apply an adaptive approach to ensure that corrective actions are applied in consultation with the appropriate construction staff to allow modifications and improvements in the management of any environmental issues resulting in community complaints.

The Complaints Register will be provided to the ER on a weekly basis (or as requested), in accordance with MCoA A28(a). Please refer to the CCS for more information about complaints management.

5.11 Emergency and Incident management

An (environmental) incident is an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance. This may be as a consequence of which pollution (air, water, noise, and land) or an adverse environmental impact has occurred, is occurring, or is likely to occur. Adverse environmental impact includes contamination, harm to flora and fauna (either individual species or communities), damage to heritage items and adverse community impacts.

The TfNSW Environment Manager will undertake all external notifications and regulatory incident reporting requirements, including those listed in CoA A43 and A44 which state:

- The Planning Secretary will be notified via the Major Projects Website immediately after the project becomes aware of an incident. The notification will identify the CSSI (including the application number and the name of the CSSI if it has one) and set out the location and nature of the incident.
- Subsequent notification and reporting must be undertaken in accordance with the requirements set out in Appendix A of the Infrastructure Approval.

Where an incident involves a potential impact to an Aboriginal site, relevant authorities such as the Office of Environment and Heritage, and Registered Aboriginal Parties will be notified and their input sought in closing out the incident.

The EPA will be notified of any pollution incidents on or around the site via the EPA Environment Line (telephone 131 555) in accordance with Part 5.7 of the Protection of the Environment Operations Act 1997 (NSW) (POEO Act). The circumstances where this will take place include:

- It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
- It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations)

The management and reporting of an environmental incident, including pollution incidents will be managed and reported in accordance with the RMS Environmental Incident Classification and Reporting Procedure (RMS, 2018) located in Appendix A5.

Incident response will be tested annually, either separately or as part of the required testing for the Pollution Incident Response Management Plan (PIRMP) required under the EPL.

5.12 Monitoring and inspections

5.12.1 Environmental inspections

Site environmental inspections will be undertaken weekly to assess the ongoing effectiveness and suitability of the Project's environmental controls. The outcomes of inspections will be captured on Environmental Inspection Checklists.

If any maintenance or deficiencies in environmental controls or in the standard of environmental performance are observed, they will be recorded as an environmental action list, describing:

- the nature of the deficiency,
- actions required, and an
- implementation timeframe based on environmental risk.

The environmental action list will then be issued to the relevant personnel for actioning. Evidence of close out (usually a photograph) is supplied back to the Environmental Coordinator for recording.

5.12.2 Environmental Representative, TfNSW and Environmental Review Group inspections

The ER, TfNSW staff and members of the Environmental Review Group (ERG) will undertake regular inspections of works sites, and in particular critical activities throughout construction of the Project. Inspections by the ER and TfNSW Project staff would typically occur on a weekly or fortnightly basis depending on the complexity and anticipated risks associated with the stage of construction.

ERG inspections will be undertaken on a monthly basis depending on the stage and progress of works. A member of the Project environment team will participate in all ER, client and ERG inspections, and records will be maintained. Deficiencies and required actions will be analysed and prioritised at the completion of the inspection and timeframes for implementation of corrective actions agreed.

5.12.3 Environmental monitoring

Issue-specific environmental monitoring will be undertaken as described in the Project Monitoring Programs, and as required by the MCoA, permit or licence condition. Monitoring will be undertaken to validate the impacts predicted for the Project, to measure the effectiveness of environmental controls, and to address approval requirements.

Aspect specific procedures for environmental monitoring are detailed in the relevant CEMP sub-plan as summarised in Table 5-2 below. Please refer to the Sub-plan for additional information.

Table 5-2 Summary of environmental monitoring required under the Project Approval for Stage 3B and 3C

MCoA / REMM	Description	Relevant Sub-Plan	Reporting Requirements
MCoA C11	Air Quality Monitoring Program	Air Quality Management Sub-plan	• A six-monthly Monitoring report will be provided to the DPHI within 60 days of the end of the monitoring period.
MCoA C11 MCoA C13	Noise and Vibration Monitoring Program	Noise and Vibration Management Sub-plan	• The results of the real-time monitoring will be readily available to the construction team, Proponent, ER and AA. • The Planning Secretary and EPA must be provided with access to the results on request. • A six-monthly Monitoring report will be provided to the DPHI within 60 days of the end of the monitoring period.
MCoA C11 MCoA C14 REMM SG20	Groundwater Monitoring Program	Groundwater Management Sub-plan	• Monitoring data to be provided to DPE Water every three months. Monitoring data to be provided to Sydney Water where discharges are directed to their assets. • A six-monthly Monitoring report will be provided to the DPHI within 60 days of the end of the monitoring period.
MCoA E79	Construction vibration monitoring where activities have the potential to impact on heritage items	Non-Aboriginal Heritage Sub-Plan Aboriginal Cultural Heritage Sub-Plan	• The results of the real-time monitoring must be readily available to the construction team, Proponent, ER and AA. • The Planning Secretary and EPA must be provided with access to the results on request. • A six-monthly Monitoring report will be provided to the DPHI within 60 days of the end of the monitoring period.
MCoA E107	Pre-construction condition surveys	Noise and Vibration Management Sub-plan	• Pre-construction Condition Survey Reports for each surface structure surveyed to be prepared. • The Pre-construction Condition Survey Reports must be prepared by a suitably qualified and experienced person(s). • Copies of the Condition Survey Reports must be provided to the owner(s) of the structures surveyed no later than four months following the completion of construction activities that have the potential to impact on the subject surface / subsurface structure.

MCoA / REMM	Description	Relevant Sub-Plan	Reporting Requirements
MCoA C11 REMM WQ4	Surface water monitoring program	Surface Water Management Sub-plan	• A six-monthly Monitoring report will be provided to the DPHI within 60 days of the end of the monitoring period.
MCoA E41 REMM B8 and B9	Microbat Monitoring Program	Flora and Fauna Management Sub-plan	• Monitoring reporting requirements to be detailed in the Microbat Monitoring Program • In the event that an impact is identified, an assessment of these impacts will be carried out by TfNSW.
MCoA E140	Parking survey for occupancy rate and project related vehicles utilising on-street parking	Construction Parking and Access Strategy	• A quarterly Monitoring report will be provided to the DPHI within 60 days of the end of the monitoring period.

5.13 Auditing

Internal and external audits will be undertaken to assess the effectiveness of environmental mitigation measures, compliance with this CEMP and other relevant approvals, licences and guidelines. Table 5-3 presents auditing requirements that are applicable to the Project.

5.13.1 Contractor internal audits

Internal auditing will be undertaken generally on a six-monthly basis throughout the Project. These internal audits will be aspect specific and focus on the aspect(s) which poses the greatest risk to construction, environmental impact and compliance at the time of the audit. The determination of which aspect to address will be made by the Environment Manager in consultation with TfNSW and the ER. The Purpose of auditing is to verify compliance with:

- This CEMP and Sub-plans
- Approval requirements (MCoAs, REMMs)
- Any relevant legal and other requirements (e.g. licenses, permits, regulations, TfNSW contract documentation).

5.13.2 Independent audits

Independent auditing will be conducted in accordance with MCoAs A37 to A41, and the audit schedule as per the *Independent Audit Requirements* (DPE, 2020), however the timing of the audit(s) may vary as determined by the Planning Secretary, following at least four weeks' notice (or timing as stipulated by the Planning Secretary) as per MCoA A39.

The nominated independent auditor(s) will be determined by TfNSW and must be agreed to in writing by the Planning Secretary prior to the commencement of an Independent Audit.

Consistent with the Independent Audit Post Approval Requirements, ACCIONA will:

a) review and respond to each Independent Audit Report;
b) provide any response to TfNSW for issuing to the Planning Secretary; and
c) make each Independent Audit Report and response publicly available on the Project website no greater than 60 days after submission to the Planning Secretary, or as otherwise agreed by the Planning Secretary.

Table 5-3 Contractor and Independent Audit requirements

No.	Audit	Requirement	Timing	Responsibility	Recipient
1	Internal audit	Verify compliance with approval and legal requirements, TfNSW specifications and construction documentation	The first audit within three months of the commencement of construction and then at six monthly intervals there-after. The final submitted within five working days of contract completion date.	Construction Environment Manager	Project manager, TfNSW
2	Independent audit	Verify compliance with approval and legal requirements, TfNSW	Within 12 weeks of the commencement of construction	Construction Environment Manager	Project manager, TfNSW

No.	Audit	Requirement	Timing	Responsibility	Recipient
		specifications, construction documentation and any other commitments	At intervals, no greater than 26 weeks from the date of the initial Independent Audit or as otherwise agreed by the Secretary.. Report submission to DPHI within two months		

5.14 Reporting

Prior to, during and following construction, various reports will be prepared to fulfil TfNSW's and other reporting needs, and requirements under the Project approval. Table 5-4 sets out the reporting requirements applicable to the Project, timing of the reporting, who is responsible for managing preparation of the reports and the intended recipient(s).

Additional reporting may be necessary as the works progress. In such a circumstance, Table 5-4 will be amended to reflect these changes.

Table 5-4 CEMP related reporting requirements

No.	Report	Requirement	Requirement source	Timing	Responsibility	Recipient
1	Monthly environmental report	For incorporation in Project Monthly Reports including environmental statistics (i.e. incidents, regulatory action, complaints on environmental issues), regulatory and authority considerations, monitoring program performance and key environmental issues	Section 3.11.2 G36 Specification	Within 10 working days of the end of each calendar month.	Construction Environment Manager	TfNSW
2	EPL monthly monitoring report	Publication of results of monitoring	EPL (Pending) Section 66(6) of the POEO Act	Within 14 days of obtaining monitoring data	Construction Environment Manager	EPA
3	EPL annual returns	Report on compliance with EPL.	EPL (Pending)	Within 60 days of the anniversary of the EPL.	Construction Environment Manager	EPA
4	Environmental risk assessment	Project changes and following significant issues.	Section 3.2.1 G36 Specification	Prior to construction during development of CEMP and as required thereafter.	Construction Environment Manager, Project Director	TfNSW

No.	Report	Requirement	Requirement source	Timing	Responsibility	Recipient
5	Monitoring results	Report on monitoring data recorded and potential exceedances against criteria.	Section 3.11 G36 Specification	60 days after the end of the reporting period (90 days for providing Groundwater Data to DPE Water)	Construction Environment Manager, Construction Environmental Officer (s)	TfNSW
6	Incident report	Any incidents that occur must be notified to the Planning Secretary	MCoA A43	Immediately after becoming aware of the incident	Construction Environment Manager and TfNSW	Planning Secretary
7	Non-compliance notification	Any non-compliances that occur must be notified to the Planning Secretary	MCoA A45 MCoA A46	Within seven days after becoming aware of the non-compliance	Construction Environment Manager and TfNSW	Planning Secretary
8	Report on need for OOHW emergency work	On becoming aware of the need for OOHW emergency work, a report detailing the reasons for such work is required.	MCoA E68 (a)(ii)	On becoming aware of the need for OOHW emergency work	Construction Environment Manager	Acoustic Advisor, Environmental Representative, EPA, Planning Secretary
9	Waste Avoidance and Resource Recovery Report	Information related to waste generated and recycled	Section 4.11.3 G36 Specification	Annual within one- month from 1 July and actual completion date	Construction Environment Manager	TfNSW

5.15 Environmental Compliance Management

A Legal and Compliance Tracking Register is included in Appendix A1 and identifies relevant legislation, MCoAs and REMMs for the Project, along with a mechanism for compliance.

Compliance management falls into three specific categories which, when considered together, are referred to as 'compliance issues'. Each category of compliance issue is addressed in further detail below.

Any member of the Project team may raise a compliance issue, as well as the ER, TfNSW Representative or regulatory agency. The compliance issue may be identified as part of a routine site inspection, ER or TfNSW inspection, audit undertaken of the project or as the result of a complaint.

Where a compliance issue is raised as part of an audit, incident or complaint investigation, the relevant report for that process may be used to close out the issue.

5.15.1 Environmental Non-Compliance

An environmental non-compliance is defined as one or more of the following:

1. An occurrence, set of circumstances or development that is a breach of this approval (SSI-8863 Planning Approval Table of Definitions).
2. Identification by the independent auditor that one or more specific elements of the conditions or requirements within the scope of the audit have not been complied with (*Independent Audit Post Approval Requirements* (DPIE, 2020).
3. Failure to implement for the duration of construction the CEMP and CEMP sub-plans (Condition of Approval C10).

Non-compliant activities may be stopped, if necessary, by the ER, construction Environmental Manager, or Construction Manager. The works will not commence until a corrective / preventative action has been closed out unless otherwise agreed with the ER.

As environmental non-compliances are identified, the following will be undertaken:

- The issue will be recorded within the compliance management database.
- An environmental action list will be developed and issued to the relevant Project Team personnel for implementation and close out. Actions will be assigned an implementation priority based on the environmental risk.
- Timeframes will be set to ensure any damage incurred is rectified and any chance of recurrence is eliminated as soon as practicable.
- Following corrective action, evidence of close out will be recorded and the ACCIONA Environmental Manager, will close out the non-compliance.

In accordance with CoA A45, ACCIONA will notify the Secretary of any non-compliance as follows:

- Notification of a non-compliance will take place via the Major Projects Website within seven days of the Project being made aware of the non-compliance.
- The notification will identify the CSSI (including the application number (SSI-8863) and the name of the CSSI (Western Harbour Tunnel & Warringah Freeway Upgrade Project)), set out the condition/s that is non-compliant, the nature of the breach; the reason for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.
- A non-compliance that has already been notified as an incident does not need to also be notified as a non-compliance.

The ER will also include environmental non-compliances within the Environmental Representative Monthly Report.

5.15.2 Non-conformances

A non-conformance is the failure to comply with an environmental requirement, standard or procedure, but does not include non-compliances as defined in Section 3.10.1 (*Environmental Management Plan Guideline for Infrastructure Projects* (Department of Planning, Industry and Environment, 2020)). A non-conformity is an established process under *AS/NZS ISO14001 Environmental Management Systems*, and is defined therein as non-fulfilment of a requirement of the ISO14001 standard or additional EMS requirements that an organisation establishes for itself.

Where non-conformances have been identified they will be communicated to the Environment Team and the Quality Manager for recording within the compliance management database, and a corrective action will be identified and issued to the relevant Project Team personnel for action and close out.

5.15.3 Opportunities for improvement

An opportunity for improvement occurs when the potential for an improved outcome has been identified without a non-compliance or non-conformance having occurred. This often occurs during management reviews or audits, where the project is compliant or has conformed with requirements and processes, but an improved outcome could be achieved by change to management strategies currently being implemented.

5.16 Records of environmental activities

5.16.1 Environmental records

The construction Environment Manager is responsible for maintaining all environmental management documents and records as current at the point of use. Types of documents and records include:

a) All monitoring, inspection and compliance reports/records
b) Correspondence with public authorities
c) Induction and training records (maintained by the Safety Team)
d) Reports on environmental incidents, environmental compliance issues, complaints and follow-up action
e) Community engagement information (maintained by the Community and Stakeholder Manager)
f) All versions of documents prepared under the EMS.
g) Environmental Risk Review outcomes

All environmental management documents are subject to ongoing review and continual improvement. This includes times of change to scheduled activities or to legislative or licensing requirements.

Only the Environment Manager, or delegate, has the authority to change any of the environmental management documentation.

5.16.2 Document control

ACCIONA will coordinate the preparation, review and distribution, as appropriate, of the environmental documents and records listed above. During the Project, the environmental documents and records will be stored at the main site compound.

ACCIONA will implement a document control procedure to control the flow of documents within and between TfNSW, stakeholders and subcontractors.

The procedure will also ensure that documentation is:

- Developed, reviewed and approved prior to issue
- Issued for use

- Controlled and stored for the legally required timeframe
- Removed from use when superseded or obsolete
- Archived.

5.17 Management review

Management reviews will be undertaken as part of the continual improvement process. The reviews will be initiated by the Environment Manager and include relevant project team members and stakeholders. The purpose of the management reviews is:

- Identification of areas of opportunity for improved environmental performance
- Analysis of the causes of nonconformities and deficiencies, including those identified in environment inspections and audits
- Verification of the effectiveness of corrective and preventative actions
- Highlighting any changes in procedures resulting from process improvement.

A desktop review of management plan documents will be undertaken as required, determined by the Environment Manager, and 12-monthly at minimum.

The reviews will include:

- Consideration of the general progress of work and the level of overall environmental risk
- Consideration of the environmental risk assessment
- Consideration of monitoring, inspection and audit results
- Consideration of recent and relevant incidents and any lessons learnt
- Consideration of any new regulatory obligations
- Consideration of any recorded pollution complaints
- A review of the effectiveness of environmental controls, including. erosion and sediment controls
- Consideration of changes in operational needs such as resourcing
- Feedback from TfNSW and other relevant stakeholders.

The outcomes of management reviews may trigger amendments to this CEMP and related documentation, revision to the Project's environmental management system, review of the risk assessment, review of internal audit frequency, re-evaluation of the project objectives and targets, as well as input into other project documents.

5.18 Ancillary Facilities

5.18.1 Ancillary Site Establishment Management Plan

In accordance with MCoA A17, before establishment of any construction ancillary facility (excluding minor construction ancillary facilities determined by the ER to have minimal environmental impact and those established under Condition A19), an Ancillary Site Establishment Management Plan (ASEMP) must be prepared to outline the environmental management practices and procedures to be implemented for the establishment of the site.

Following site establishment, the use of a construction ancillary facility for construction must not commence until the CEMP, relevant CEMP Sub-plans and relevant Monitoring Programs have been approved, in accordance with MCoA A18.

Due to the nature of the staging of the entire package of works (i.e. the WFU and WHT project stages combined), the site establishment of three ancillary sites for use by the WHT Project has already been undertaken under the SSI 8863 approval, including:

a) Ridge Street north (WHT9): Previously established and used for Stage 1A and Stage 2 activities.

b) Cammeray Golf Club (WHT10): Previously established and used by Stage 1A/1B and Stage 2 activities.

c) City West Link Portal (WHT12): Previously established as part of the Rozelle Interchange/M4-M5 Link project and used for Stage 3A activities.

In addition to the ancillary facility sites above, the Project will also establish the following ancillary sites. These sites will require an ASEMP prepared prior to the commencement of site establishment activities.

- Glebe Island (WHT3)
- Berry Street north (WHT8).
- Emu Plains (WHT13).

To date, ASEMPs have been prepared and approved by the Planning Secretary for both Berry Street North (WHT8) and Emu Plains (WHT13). These ASEMPs are provided in Appendix K and L. An ASEMP for the Glebe Island (WHT3) construction support site will be submitted for approval prior to the commencement of site establishment activities at this location.

The ASEMP for Glebe Island (WHT3) will address all the requirements of MCoA A17 including:

A. a description of activities to be undertaken during establishment of the construction ancillary facility (including scheduling and duration of work to be undertaken at the site);

B. figures illustrating the proposed operational site layout and the location of the closest sensitive land user(s);

C. a program for ongoing analysis of the key environmental risks arising from the site establishment activities described in subsection (a) of this condition, including an initial risk assessment undertaken prior to the commencement of site establishment work;

D. details of how the site establishment activities described in subsection (a) of this condition will be carried out to:

   i. meet the performance outcomes stated in the documents listed in Condition A1, and

   ii. manage the risks identified in the risk analysis undertaken in subsection (c) of this condition; and

E. a program for monitoring the performance outcomes, including a program for construction noise monitoring.

This ASEMP(s) to be prepared will be undertaken in consultation with Inner West Council and government agencies before being submitted for approval by the Planning Secretary. Once the ASEMP(s) have been approved, the documents will be included in this CEMP.

5.18.2 Minor Ancillary Facilities

Lunch sheds, office sheds, portable toilet facilities, car parking, material storage, and the like which have not been identified in the Approval documents can be established and used where they have been assessed in the documents listed in condition A1 or where they satisfy the following criteria:

a) are located within or adjacent to the construction boundary; and

b) have been assessed by the ER to have:

i. minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the Interim Construction Noise Guideline (DECC, 2009), traffic and access impacts, dust impacts, and visual (including light spill) impacts, and

ii. minimal environmental impact with respect to waste management and flooding, and

iii. no impacts on biodiversity, soil and water, and heritage items beyond those already approved under other terms of this approval.

The assessment of minor ancillary facilities is included in the functions of the ER as described in CoA A27.

5.18.3 Additional Ancillary Facilities

In accordance with MCoA A16 additional ancillary facilities (that are not identified by description and location in the Approval documents) can only be established and used in each case if:

a) they are located within or immediately adjacent to the construction boundary; and

b) they are not located next to sensitive land user(s) (including where an access road is between the facility and the receiver), unless the landowner and occupier have given written acceptance to the carrying out of the relevant facility in the proposed location; and

c) they have no impacts on heritage items (including areas of archaeological sensitivity), threatened species, populations or ecological communities beyond the impacts approved under the terms of this approval; and

d) the establishment and use of the facility can be carried out and managed within the outcomes set out in the terms of this approval, including in relation to environmental, social and economic impacts.

In some cases, existing facilities may be utilised in accordance with exempt or complying development approvals.

5.18.4 Ancillary Facility Management

In all cases, boundary screening must be erected between ancillary facilities and adjacent to sensitive land user(s) for the duration of the ancillary facility is in use unless otherwise agreed with relevant affected residents, business operators or landowners. This boundary screening must minimise visual impacts on adjacent sensitive land user(s).

In addition to being included on the Project website (provided on the website required under MCoA B15) the following information will be made available on-site boundary fencing/hoarding at each ancillary facility before the commencement of construction:

- CSSI name;
- application number;
- telephone number,
- postal address; and
- email address required under Condition B8 of this approval.

5.18.5 Working hours

In accordance with MCoA E66, approved working hours on this project are:

- 7:00am to 6:00pm Mondays to Fridays, inclusive
- 8:00am to 6:00pm Saturdays
- at no time on Sundays or public holidays.

Except as permitted by an EPL, highly noise intensive works that result in an exceedance of the applicable Noise Management Level (NML) at the same receiver must only be undertaken:

- between the hours of 8:00 am to 6:00 pm Monday to Friday
- between the hours of 8:00 am to 1:00 pm Saturday
- if continuously, then not exceeding three hours, with a minimum cessation of work of not less than one hour.

In accordance with MCoA E67, 'continuously' includes any period during which there is less than one hour between ceasing and recommencing any of the work.

Work may be undertaken outside the hours specified above such as the circumstances specified by MCoA E68. For further detail refer to the Noise and Vibration Management Plan.

5.19 Light Spill

The Project will be constructed and operated with the objective of minimising light spillage to surrounding properties in accordance with MCoA E163. This includes:

- Minimising light spill to residential properties in accordance with the requirements of Australian Standard 4282-2019 Control of the obtrusive effects of outdoor lighting and relevant Australian Standards in the series AS/NZ 1158 – Lighting for Roads and Public Spaces.
- Providing mitigation measures as part of OOHW approvals to manage residual night lighting impacts to properties next to construction and ongoing consultation with sensitive receivers.
- Regular inspections and maintenance of site hoardings around ancillary facilities and work areas.

5.20 Landscaping, visual impact and amenity

The project (including construction support sites) will be constructed in a manner that minimises visual impact for adjacent receivers, as described in MCoA E155 and REMM V1. This may include the implementation of lighting controls (refer to Section 5.19), vegetation screening/temporary landscaping, implementing permanent landscaping as early as feasible, installation of site screening/hoarding and incorporating architectural finishes. Additional measures include:

- Storage areas and associated works will be located in cleared and otherwise disturbed areas away from residential areas where feasible and reasonable.
- Site hoardings will be in neutral colours and designs in proximity to open space to help blend them into the surrounding environment.
- Site hoarding and perimeter site areas will be maintained regularly to include the prompt removal of graffiti.
- Hoardings and temporary noise walls will be erected as early as possible within the site establishment phase to provide visual screening.

- High quality fencing suitable for parks and public spaces will be used where construction support sites are located in close proximity to sensitive residential receivers such as residents and users of recreational space.
- Existing trees adjacent to the works will be retained and protected where possible to screen construction support sites, minimising clearing where possible.
- Where possible, trees will be trimmed rather than removed. Works will be carried out by a qualified arborist.

On completion of the works, all areas disturbed by construction activities (including the site compound, materials storage, access and haul roads) will be reinstated and restored to conditions as outlined in the post-construction land assessment and in consultation with the relevant landowner. Wherever possible, replacement and enhancement of vegetative screening along the project corridor, and works identified in MCoA E189 and E190, will be undertaken in a progressive manner during construction to allow for the early establishment of vegetative screening.

Upon completion, WFU and WHT in totality must result in a net increase in usable open space, within the general vicinity of the loss, unless agreed to by the Planning Secretary. Specifically, Following the completion of the use of the St Leonards Park for ancillary facility WHT9, the site must be returned to public open space in consultation with North Sydney Council, to maximise usable open space.

Final design of place making, design and landscape outcomes will be informed by and be consistent with Appendix V of the EIS, including but not limited to the objectives and design principles, requirements and opportunities. A Landscape Strategy Report will be prepared to provide details of replacement trees, consistent with MCoA E187.

Following revegetation maintenance of planting, and replacement of failed plantings, will be managed in accordance with MCoA E192 – 194. Further detail on tree protection and replacement can be found in the FFMP (Appendix C).

An Active Transport Network Review will be undertaken by TfNSW to comply with the requirements identified in MCoA E195 and E196.

5.21 Design Review Panel and PDLP

There are a multitude of conditions that pertain to the establishment, scope and delivery of a Design Review Panel (DRP) and a Place Design and Landscape Plan (PDLP); refer to Appendix A1 for full cross referencing of the MCoA that apply. The establishment of the DRP will be led by TfNSW and ACCIONA will attend and contribute under that direction and in accordance with the applicable MCoA. The Project Design Manager will be responsible for ACCIONA's involvement and deliverables for the DRP, including a PDLP required under MCoA E177.

The PDLP will be prepared in accordance with MCoA E178, and by a suitably qualified and experienced person in consultation with relevant councils, the community and affected landowners and businesses. It is noted that the PDLP does not apply to work, which for technical, engineering, or ecological requirements, or other requirements as agreed by the Planning Secretary, do not allow for alternative design outcomes.

Operational noise barriers will be included in the PDLP, and will be designed to minimise visual and amenity impacts and be designed in accordance with the Noise wall design guideline – Design guideline to improve the appearance of noise walls in NSW (RMS, March 2016).

The PDLP will be subject to review by the DRP, and will be provided to the Planning Secretary for approval no later than one month before the construction of permanent work to which it applies. Such works cannot be commenced until approval has been awarded (unless otherwise agreed with the Planning Secretary). On approval, the PDLP will be implemented during design and operation.

5.22 Utilities

ACCIONA will identify the utilities and services potentially affected by construction to determine requirements for diversion, protection and/or support. Alterations to services will be determined by negotiation with the relevant service providers. This consultation will ensure that disruption to services resulting are avoided (where practical) and advised to customers.

A Utility Coordination Manager will be appointed for the duration of the Project in line with Condition E154 this role must include but not be limited to:

a) the management and coordination of all utility Work associated with the delivery of the CSSI, to ensure respite is provided to the community

b) providing advice to the Public Liaison Officer(s) regarding upcoming utility Work, including the scope of the work and the responsibility for the Work; and

c) investigating complaints received from the Community Complaints Mediator or the Public Liaison Officer(s) relating to utility Work and providing a response to the Community Complaints Mediator or Public Liaison Officer(s).

6 CEMP & Sub-plan revision

6.1 Review Process

A document review will be undertaken to ensure that the CEMP (which is considered to include this document and all sub plans listed in Table 4-1 and the monitoring programs incorporated into those documents) is updated as appropriate for the Project. This review may be triggered:

a) as described in Section 5.17 for annual review

b) in accordance with Section 6.2 for Project changes

c) following a Project Audit as described in Section 5.13.

d) following a compliance issues as described in Section 5.15

Should the document review identify any issues or items within the documents that are either redundant or in need of updating, it is the responsibility of the Environment Manager or delegate to prepare the revised documents.

The revised document will then be issued to the Project Manager and the ER for certification of the changes. The ER can approve minor changes to the CEMP. Minor changes would typically include those that:

- Are editorial in nature e.g. staff and agency/authority name changes
- Do not increase the magnitude of impacts on the environment when considered individually or cumulatively
- Do not compromise the ability of the Project to meet approval or legislative requirements
- Lower the level of overall environmental risk or bring the project into line with predicted risks
- Are required as a result monitoring, inspection and audit results
- Result from consideration of recent and relevant incidents and any lessons learnt
- Are required because of any new regulatory obligations
- Where a review of the effectiveness of environmental controls, including. erosion and sediment controls has identified that improvements are needed
- Are required because of changes in operational needs such as resourcing
- Are required because of feedback from TfNSW and other relevant stakeholders

Where the ER deems it necessary, the amended CEMP will be forwarded to the Planning Secretary for approval.

Revised versions of the CEMP will be made available through the processes in accordance with CoA C2, updates to the CEMP will be made within seven days of the completion of the review or receipt of actions identified by any audit of the document and be submitted to the ER for endorsement and TfNSW for approval.

6.2 Changes to the Project

Refinements to the Project may occur as a result of detailed design progression or changed circumstances throughout construction. TfNSW is required to seek formal approval from the Minister for any Project modifications and for documenting refinements that are consistent with the approved Project.

Any design changes or changes in scope of works must be communicated to the Environment Manager. The Environment Manager or delegate will undertake a Consistency Assessment in

consultation with the TfNSW Environment Manager to determine if a Project Modification may be required. TfNSW is required to seek formal approval from the Planning secretary for any Project Modifications but under Roads and Maritime Part 5.1 Assessment procedure, the TfNSW General Manager will approve all refinements that are deemed consistent with the Project approval, where appropriate.

Should the consistency assessment determine that a Project Modification may be required, i.e. the impacts are of a nature and scale that it is not considered consistent with the Project approval, a Modification application under Section 5.25 of the EP&A Act 1979 will be lodged to the Planning Secretary for determination.

Following approval, either via Project Modification or Consistency Assessment, the CEMP may be updated to reflect the revised Project scope.

Appendix A1

Legal Requirements and Compliance Tracking Register

CEMP – Appendix A1

Western Harbour Tunnel Package 2 Project

SSI 8863

Legal Requirements

Table A1-1 Legal register

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
General					
Environmental Planning and Assessment Act, 1979	All	Comply with the conditions and other requirements or measures of the Minister for Planning and Public Spaces' approval for the project. Obtain the Minister's approval for any project modifications that are not consistent with the planning approval.	S5.14 S5.25	Yes	CEMP Appendix A1 Table A1-2. Section 6.2
Traffic and transport					
Road Rules 2014 (NSW)	Construction related vehicle movements	Vehicles used during the construction of the project are to comply with the *Road Rules 2014 (NSW).*	S11	No	Traffic, Transport and Access Management Sub Plan
Roads Act 1993 (NSW) (Road Opening Permit and Road Occupancy Licence)	Use of and work on/over public roads	A public road may not be opened otherwise than in accordance with the provisions of this Act. A person must not – a) erect a structure or carry out a work in, on or over a public road, or b) dig up or disturb the surface of a public road, or c) remove or interfere with a structure, work or tree on a public road, or d) pump water into a public road from any land adjoining the road, or e) connect a road (whether public or private) to a classified road,	Part 2 Part 9	No	Traffic, Transport and Access Management Sub Plan

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
		otherwise than with the consent of the appropriate roads authority			
Noise and Vibration					
Protection of the Environment Operations Act 1997	Plant maintenance and operation	Do not operate plant if it emits noise caused by poor maintenance or operation.	S139	Yes	Noise and Vibration Management Sub Plan
Protection of the Environment Operations Act 1997	Materials management	Do not cause noise by failing to properly and efficiently deal with materials.	S140	Yes	Noise and Vibration Management Sub Plan
Air quality					
Protection of the Environment Operations Act 1997 (NSW)	Air pollution from operation of plant	The occupier of any premises who operates any plant in or on those premises in such a manner as to cause air pollution from those premises is guilty of an offence if the air pollution so caused, or any part of the air pollution so caused, is caused by the occupier's failure— (a) to maintain the plant in an efficient condition, or (b) to operate the plant in a proper and efficient manner.	S124	No	Air Quality Management Sub Plan
Protection of the Environment Operations Act 1997 (NSW)	Maintenance work on plant	The occupier of any premises who carries out maintenance work on any plant in or on those premises in such a manner as to cause air pollution from those premises is guilty of an offence if the air pollution so caused, or any part of the air pollution so caused, is caused by the occupier's failure to carry out that work in a proper and efficient manner.	S125	No	Air Quality Management Sub Plan

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
Protection of the Environment Operations Act 1997 (NSW)	Deal with materials in a manner that causes air pollution	(1) The occupier of any premises who deals with materials in or on those premises in such a manner as to cause air pollution from those premises is guilty of an offence if the air pollution so caused, or any part of the air pollution so caused, is caused by the occupier's failure to deal with those materials in a proper and efficient manner. (2) In this section— deal with materials means process, handle, move, store or dispose of the materials. materials includes raw materials, materials in the process of manufacture, manufactured materials, by-products or waste materials.	S126	No	Air Quality Management Sub Plan
Protection of the Environment Operations Act 1997 (NSW)	Standards of air impurities	(1) The occupier of any premises must not carry on any activity, or operate any plant, in or on the premises in such a manner as to cause or permit the emission at any point specified in or determined in accordance with the regulations of air impurities in excess of— a) the standard of concentration and the rate, or b) the standard of concentration or the rate, prescribed by the regulations in respect of any such activity or any such plant. (1A) Subsection (1) applies only to emissions (point source emissions) released from a chimney, stack, pipe, vent or other similar kind of opening or release point.	S128	No	Air Quality Management Sub Plan

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
		(2) The occupier of any premises must carry on any activity, or operate any plant, in or on the premises by such practicable means as may be necessary to prevent or minimise air pollution if— a) in the case of point source emissions—neither a standard of concentration nor a rate has been prescribed for the emissions for the purposes of subsection (1), or b) the emissions are not point source emissions.			
Protection of the Environment Operations (Clean Air) Regulation 2010	Air impurities emitted from activities and plant	Emissions are to comply with the standard of concentration prescribed by Schedule 6 for an air impurity	Division 3	No	Air Quality Management Sub Plan
Heritage					
Heritage Act 1977	Heritage	Do not undertake an activity that will affect a place, building, work, relic, moveable object or precinct which is subject to an Interim Heritage Order or is listed on the State Heritage Register without approval from the Heritage Council.	S56-57	No	Non-Aboriginal Heritage Management Sub Plan
		Do not disturb or excavate land with knowledge or reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed; or Do not disturb or excavate land on where a relic has been discovered or exposed.	S139	No	Non-Aboriginal Heritage Management Sub Plan
		Notify the Heritage Council on discovery of a relic	S146	Yes	Non-Aboriginal Heritage Management Sub Plan

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
National Parks and Wildlife Act 1974	Aboriginal places and objects	Do not harm or desecrate an Aboriginal object or Aboriginal place without consent.	S86 S90	No	Aboriginal Cultural Heritage Management Sub Plan
		Notify the NPWS within reasonable time of becoming aware of the location or discovery of certain Aboriginal objects.	S89A	Yes	Aboriginal Cultural Heritage Management Sub Plan
Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth)	Protection of areas and objects	Report any discovery of Aboriginal remains to the Federal Minister for the Environment.	S20	Yes	Aboriginal Cultural Heritage Management Sub Plan
		Comply with the provisions of any declaration in relation to a significant Aboriginal area or object.	S22	Yes	Aboriginal Cultural Heritage Management Sub Plan
Water					
Water Management Act 2000 With the exception of controlled activity approvals, the *Water Management Act 2000* (WM Act) only applies in relation to those water sources covered by operational water sharing plans – these areas cover most of the State's major regulated river systems.	Water access and use.	Do not take water from a water source (a lake, river or estuary or place where water occurs naturally on or below the surface of the ground, and includes coastal waters) without an access licence. Do not use of water on land (unless supplied by a water utility, irrigation corporation etc or in accordance with basic landholder rights) without a water use approval.	S56 S60A S89 S91A	No Under Schedule 4, Part 1, clause 2 of the Water Management (General) Regulation 2011, roads authorities are exempt from the requirement to hold a water access licence to take water for road construction and road maintenance.	Soil and Surface Water Management Sub Plan
Water Management Act 2000	Water management works	Do not construct/use a water supply work, drainage work or flood work without the appropriate approval.	S90 S91B S91C	No	Soil and Surface Water Management Sub Plan

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
			S91D		
Water Management Act 2000	Waterfront land.	Do not deposit material, excavate, or remove material within a watercourse bank, shore or bed, or on land 40 metres inland, or interfere with the likely flow of water to such a body, without a controlled activity approval.	S91	No Public authorities are exempt from the need to obtain a controlled activity approval. *Water Management (General) Regulation 2011 (cl.38)*	Soil and Surface Water Management Sub Plan
Water Act 1912 Note that this Act is being progressively repealed by the *Water Management Act 2000 (NSW)* (WM Act). With the exception of controlled activity approvals, the WM Act only applies in relation to those water sources covered by operational water sharing plans – these areas cover most of the State's major regulated river systems.	Surface water	Obtain a licence or permit for construction or use of 'work' for purposes including the taking and using of water	S21B	Yes	Soil and Surface Water Management Sub Plan
	Groundwater	Obtain a licence where interference with groundwater is likely to occur.	S112 S121A	S112 does not apply to the Crown. TfNSW is therefore not required to obtain a licence under this provision.	Soil and Surface Water Management Sub Plan
	Floodplains	Obtain an approval for controlled works. These include works which occur on a designated floodplain, which can prevent land from being flooded or which can affect water flow to or from a river or lake.	91D	*An exemption in relation to roads potentially applies – see clause 41E of the Water Management Regulation 2011.*	Soil and Surface Water Management Sub Plan

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
Protection of the Environment Operations Act 1997	Water pollution	Do not cause water pollution (other than to a sewer), except in accordance with the conditions of an Environment Protection Licence	S120 S122	Yes	Soil and Surface Water Management Sub Plan
Contaminated material and soils					
Protection of the Environment Operations Act 1997	Land pollution	Do not cause or permit land pollution other than under authority of a licence or regulation. (However it is not a land pollution offence to place virgin excavated natural material or lawful pesticides and fertilisers on land, or by placing matter on land that has been notified to the EPA as an unlicensed landfill and which is operated in accordance with the regulations.)	S142 – S142E	Yes	Soil and Surface Water Management Sub Plan Contaminated Land Management Procedure
Contaminated Land Management Act 1997	Reporting contamination	Notify the EPA if; • Contaminants exceed thresholds contained in guidelines or the regulations where contamination has entered or will foreseeably enter neighbouring land, the atmosphere, groundwater or surface water. • Contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land. • Contamination meets other criteria that may be prescribed by the regulations	S60	Yes	Soil and Surface Water Management Sub Plan Contaminated Land Management Procedure
Biodiversity					
Biodiversity Conservation Act 2016	Fauna	Do not harm any animal that is; of a threatened species, that is part of a	S2.1	Yes	Flora and Fauna Management Sub Plan

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
		threatened ecological community or is a protected animal, unless authorised under other legislation (e.g. planning approval)	S2.8		
Biodiversity Conservation Act 2016	Habitat	Do not damage habitat of a threatened species or ecological community unless authorised under other legislation (e.g. planning approval).	S2.4 S2.8	Yes	Flora and Fauna Management Sub Plan
Biodiversity Conservation Act 2016	Flora	Do not pick a plant that is; of a threatened species, that is part of a threatened ecological community or is a protected plant, unless authorised under other legislation (e.g. planning approval).	S2.2 S2.8	Yes	Flora and Fauna Management Sub Plan
Biosecurity Act 2015	Weeds	Manage weeds on site in accordance with the relevant Regional Strategic Weed Management Plan.	S22	Yes	Flora and Fauna Management Sub Plan
Biosecurity Regulation 2017	Pests and Diseases	Notify the presence any pest or disease listed in Schedule 1 of the Biosecurity Regulation 2017, within 1 working day after suspecting or becoming aware of the pest or disease.	cl.7 Schedule 1	Yes	Flora and Fauna Management Sub Plan
Environment Protection Biodiversity Conservation Act, 1999 (Commonwealth)	Flora and fauna conservation	Do not kill, injure or take a member of a listed threatened species without a permit.	Part 13	Yes	Flora and Fauna Management Sub Plan
Pesticides Regulation 2017	Control of weeds	Prior notice must be given 5 working days before applying pesticides near to a sensitive place	Part5	Yes	Flora and Fauna Management Sub Plan
Waste					
Protection of the Environment Operations Act 1997	Waste and transportation	Do not undertake a scheduled waste activity unless in accordance with an environmental protection licence. A licence must be obtained when construction and demolition wastes are	Part 3.2 Schedule 1	Yes	Waste and Resource Management Sub-plan

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
		applied to land under certain circumstances. This includes the reincorporation of crushed road base material back into roads and the placing of excess fill material onto properties. A licence is not required if the material: • Is VENM. • Does not exceed 200 tonnes in the Sydney, Newcastle and Wollongong areas, or 20,000 tonnes outside these areas. • Is covered by a "general exemption". Current exempted materials are ENM, recycled aggregates and raw mulch. These exemptions are conditional and require some chemical testing of materials before they are placed onto land. • A licence must be obtained if more than 2,500 tonnes (or cubic metres) is stored on a stockpile site at any one time, or more than 30,000 tonnes of waste is received per year from off site			
		Only transport waste to a facility that can lawfully accept the waste.	S143	Yes	Waste and Resource Management Sub-plan
		Do not dispose of waste in a manner that harms or is likely to harm the environment.	S115	Yes	Waste and Resource Management Sub-plan
Protection of the Environment Operations	Waste and transportation	Comply with general requirements for the transport of waste. For example, any vehicle used by the person to transport waste must be kept in a clean condition	Regulation cl.49	Yes	Waste and Resource Management Sub-plan

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
(Waste) Regulation 2005		and be maintained so as to prevent spillage of waste. For some wastes only licensed transporters can be used.			
		Comply with record keeping requirements in relation to the transport of certain types of waste.	Regulation Part 3	Yes	Waste and Resource Management Sub-plan
General					
Protection of the Environment Operations Act 1997	Harming the environment	Do not risk harming the environment by wilfully or negligently: disposing of waste unlawfully. causing any substance to leak, spill or otherwise escape (whether or not from a container); or emitting an ozone depleting substance	S115 S116 S117	Yes	Flora and Fauna Management Sub Plan Soil and Surface Water Management Sub Plan Air Quality Management Sub Plan
Protection of the Environment Operations Act 1997	Control equipment	Properly and efficiently maintain and operate any installed pollution control equipment (including monitoring devices).	S167	Yes	Air Quality Management Sub Plan
Protection of the Environment Operations Act 1997	Notification of pollution incidents	Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.	S148	Yes	Section 5.11
Protection of the Environment Operations Act 1997	Site licensing	Do not carry out or allow an activity listed in Schedule 1, or carry out work to enable such an activity, unless the premises are licensed by the EPA. This applies to: e) road construction: meaning the construction, widening or re-routing of roads if it results in the existence of 4 or more traffic lanes (other than bicycle lanes or lanes used for entry or exit) for 1 kilometres of their length in the metropolitan area, or 5 kilometres in length in any other area, where	S47 S48	Yes	Environmental Protection Licence

Act or Statutory Instrument	Activity / aspect	Requirement	Reference	Division 5.2 applicability	Manner of compliance
		the road is classified, or proposed to be classified, as a freeway or tollway under the *Roads Act 1993 (NSW)*.			
Environmentally Hazardous Chemicals Act, 1985	Hazards and risks	Obtain a licence to undertake prescribed activities involving environmentally hazardous chemicals or declared chemical wastes.	S28	Yes	Soil and Surface Water Management Sub Plan
Dangerous Goods (Road and Rail Transport) Act 2008	Hazards and risks	Ensure that dangerous goods are transported in a safe manner.	S9	Yes	Traffic, Transport and Access Management Sub Plan Soil and Surface Water Management Sub Plan
Pesticides Act 1999	Hazards and risks	Use pesticides in an environmentally sensitive manner. Do not use an unregistered pesticide without a permit. Read the label or permit for the pesticide. Use registered pesticides in accordance with instructions on the label. Do not use any restricted pesticide unless authorised by a certificate of competency or a pesticide control order under the Act. Compliance with pesticide codes of practice is required.	S12 S13 S14 S15 S17	Yes	Flora and Fauna Management Sub-plan
National Greenhouse and Energy Reporting Act, 2007 and Regulations 2008	Greenhouse gas emissions	Accounting and reporting of greenhouse gases produced and energy consumed during construction. Applicability dependent on thresholds.	-	Yes	Sustainability Management Plan

Ministers Conditions of Approval

MCoA	Condition Requirements	Manner of compliance
A1	The Proponent must carry out the CSSI in accordance with the terms of this approval and generally in accordance with the: a) Western Harbour Tunnel and Warringah Freeway Upgrade Environmental Impact Statement – Volumes 1A-B and 2A-J (dated January 2020) (the EIS); and b) Western Harbour Tunnel and Warringah Freeway Upgrade Response to Submissions Report (dated September 2020) (the RtS) c) Western Harbour Tunnel and Warringah Freeway Upgrade – Wicks Road construction support site Modification Report dated October 2022 (Modification 1) as amended by the Western Harbour Tunnel and Warringah Freeway Upgrade – Wicks Road construction support site Response to Submissions Report and Agency Advice (dated 25 November 2022) and d) Western Harbour Tunnel and Warringah Freeway Upgrade – Construction method change to TBM Modification Report (July 2023) (Modification 2) as amended by the Western Harbour Tunnel and Warringah Freeway Upgrade – Construction method change to TBM Response to Submissions Report. e) Western Harbour Tunnel and Warringah Freeway Upgrade Modification 2 – TBM Construction Methodology (dated July 2023); f) Western Harbour Tunnel and Warringah Freeway Upgrade Modification 2 - TBM Construction Methodology Submissions Report (dated October 2023); and g) Emu Plains Flood Impact and Risk Assessment (dated 12 January 2024).	This document and associated subplans (Appendices: B to L)
A2	The CSSI must only be carried out in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in the documents listed in Condition A1 unless otherwise specified in, or required under, this approval.	Noted
A3	In the event of an inconsistency between: a) the terms of this approval and any document listed in Condition A1 inclusive, the terms of this approval will prevail to the extent of the inconsistency; and b) any document listed in Condition A1 inclusive, the most recent document will prevail to the extent of the inconsistency. Note: For the purpose of this condition, there will be an inconsistency between a term of this approval and any document if it is not possible to comply with both the term and the document.	Noted
A4	The Proponent must comply with all written requirements or directions of the Planning Secretary, including in relation to: a) the environmental performance of the CSSI; b) any document or correspondence in relation to the CSSI;	Noted

MCoA	Condition Requirements	Manner of compliance
	c) any notification given to the Planning Secretary under the terms of this approval; d) any audit of the construction or operation of the CSSI; e) the terms of this approval and compliance with the terms of this approval (including anything required to be done under this approval); f) the carrying out of any additional monitoring or mitigation measures; and g) in respect of ongoing monitoring and management obligations, compliance with an updated or revised version of a guideline, protocol, Australian Standard or policy required to be complied with under this approval.	
A5	Where the terms of this approval require a document or monitoring program to be prepared or a review to be undertaken in consultation with identified parties, evidence of the consultation undertaken must be submitted to the Planning Secretary with the document. The evidence must include: a) documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval; b) a log of the dates of engagement or attempted engagement with the identified party; c) documentation of the follow-up with the identified party where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations; d) outline of the issues raised by the identified party and how they have been addressed; and e) a description of the outstanding issues raised by the identified party and the reasons why they have not been addressed.	Section 2.2
A6	This approval lapses five years after the date on which it is granted, unless work has physically commenced on or before that date.	Noted
A7	References in the terms of this approval to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Australian Standards or policies in the form they are in as at the date of this approval.	Noted
A8	Any document that must be submitted or action taken within a timeframe specified in or under the terms of this approval may be submitted or undertaken within a later timeframe agreed with the Planning Secretary. This condition does not apply to the written notification required in respect of an incident under Conditions A43 and A45.	Noted
A9	The implementation of the Noise Insulation Program (NIP) does not trigger the following Conditions A24, A30, B1 and B11, until such time that construction commences.	Noted
A10	The CSSI may be constructed and operated in stages. Where staged construction or operation is proposed, a Staging Report (for either or both construction and operation as the case may be) must be prepared and	Description of staged works provided in Section1.3.

MCoA	Condition Requirements	Manner of compliance
	submitted to the Planning Secretary for information. The Staging Report must be endorsed by the ER and then submitted to the Planning Secretary no later than one month before the commencement of construction of the first of the proposed stages of construction (or if only staged operation is proposed, one month before the commencement of operation of the first of the proposed stages of operation).	Refer to the TfNSW Staging Report for more detail.
A11	The Staging Report must: a) if staged construction is proposed, set out how the construction of the whole of the CSSI will be staged, including details of work and other activities to be carried out in each stage and the general timing of when construction of each stage will commence and finish; b) if staged operation is proposed, set out how the operation of the whole of the CSSI will be staged, including details of work and other activities to be carried out in each stage and the general timing of when operation of each stage will commence and finish (if relevant); c) specify how compliance with conditions will be achieved across and between each of the stages of the CSSI; and d) set out mechanisms for managing any cumulative impacts arising from the proposed staging.	Description of staged works provided in Section 1.3. Refer to the TfNSW Staging Report for more detail.
A12	The CSSI must be staged in accordance with the Staging Report, and submitted for information to the Planning Secretary.	Noted. TfNSW will be preparing and submitting the Staging Report
A13	Where staging is proposed, the terms of this approval that apply or are relevant to the work or activities to be carried out in a specific stage must be complied with at the relevant time for that stage.	Noted
A14	Where changes are proposed to the staging of construction or operation, a revised Staging Report must be prepared, endorsed by the ER and submitted to the Planning Secretary for information no later than one month prior to the proposed change in the staging.	Noted. TfNSW will be preparing and submitting the Staging Report
A15	With the approval of the Planning Secretary, the Proponent may submit any strategies, plans or programs required by this approval on a progressive basis. Notes: 1. While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and 2. 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 strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.	Noted

MCoA	Condition Requirements	Manner of compliance
A16	Ancillary facilities that are not identified by description and location in the documents listed in Condition A1 can only be established and used in each case if: a) they are located within or immediately adjacent to the construction boundary; and b) they are not located next to sensitive land user(s) (including where an access road is between the facility and the receiver), unless the landowner and occupier have given written acceptance to the carrying out of the relevant facility in the proposed location; and c) they have no impacts on heritage items (including areas of archaeological sensitivity), threatened species, populations or ecological communities beyond the impacts approved under the terms of this approval; and d) the establishment and use of the facility can be carried out and managed within the outcomes set out in the terms of this approval, including in relation to environmental, social and economic impacts.	Section 5.18.3
A17	Before establishment of any construction ancillary facility (excluding minor construction ancillary facilities determined by the ER to have minimal environmental impact and those established under Condition A19), the Proponent must prepare an Ancillary Site Establishment Management Plan which outlines the environmental management practices and procedures to be implemented for the establishment of the construction ancillary facilities. The Ancillary Site Establishment Management Plan must be prepared in consultation with the relevant council and government agencies. The Plan must be submitted to the Planning Secretary for approval one month before the establishment of any construction ancillary facilities. The Ancillary Site Establishment Management Plan must detail the management of the construction ancillary facilities and include: a) a description of activities to be undertaken during establishment of the construction ancillary facility (including scheduling and duration of work to be undertaken at the site); b) figures illustrating the proposed operational site layout and the location of the closest sensitive land user(s); c) a program for ongoing analysis of the key environmental risks arising from the site establishment activities described in subsection (a) of this condition, including an initial risk assessment undertaken prior to the commencement of site establishment work; d) details of how the site establishment activities described in subsection (a) of this condition will be carried out to: (i) meet the performance outcomes stated in the documents listed in Condition A1, and (ii) manage the risks identified in the risk analysis undertaken in subsection (c) of this condition; and e) a program for monitoring the performance outcomes, including a program for construction noise monitoring. Nothing in this condition prevents the Proponent from preparing individual Ancillary Site Establishment Management Plans for each construction ancillary facility.	Section 5.18

MCoA	Condition Requirements	Manner of compliance
A18	The use of a construction ancillary facility for construction must not commence until the CEMP required by Condition C1, relevant CEMP Sub-plans required by Condition C4 and relevant Construction Monitoring Programs required by Condition C11 have been approved by the Planning Secretary.	Section 5.18
A18A	Once an ancillary facility is no longer required for the CSSI, the land must be returned to its pre-existing or better condition within six months of the site being decommissioned or within two years of operation (whichever is the earliest), unless the land is subject to another requirement of this approval or another section of the EP&A Act.	Noted
A19	Lunch sheds, office sheds, portable toilet facilities, car parking, material storage, and the like, can be established and used where they have been assessed in the documents listed in Condition A1 or satisfy the following criteria: a) are located within or adjacent to the construction boundary; and b) have been assessed by the ER to have - (i) minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the Interim Construction Noise Guideline (DECC, 2009), traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and (ii) minimal environmental impact with respect to waste management and flooding, and (iii) no impacts on biodiversity, soil and water, and heritage items beyond those already approved under other terms of this approval.	Section 5.18
A20	Boundary screening must be erected between ancillary facilities and are adjacent to sensitive land user(s) for the duration of the ancillary facility is in use unless otherwise agreed with relevant affected residents, business operators or landowners. All Boundary screening must minimise visual impacts on adjacent sensitive land user(s).	Section 5.18
A21	All Independent Appointments required by this approval must hold current membership of a relevant professional body, unless otherwise agreed by the Planning Secretary.	Noted
A22	The Planning Secretary may at any time commission an audit of how an Independent Appointment has exercised their functions. The Proponent must: a) facilitate and assist the Planning Secretary in any such audit; and b) make it a term of their engagement of an Independent Appointment that the Independent Appointment facilitate and assist the Planning Secretary in any such audit.	Noted
A23	The Planning Secretary may withdraw its approval of an Independent Appointment should they consider the Independent Appointment has not exercised their functions in accordance with this approval. Note: Conditions A22 and A23 apply to all Independent Appointments including the ER, AA, Community Complaints Mediator and the AQIR.	Noted

MCoA	Condition Requirements	Manner of compliance
A24	Work must not commence until an Environmental Representative (ER) has been nominated by the Proponent and approved by the Planning Secretary.	Section 5.7.1
A25	The proposed ER must be a suitably qualified and experienced person(s) who was not involved in the preparation of the documents listed in Condition A1, and is independent from the design and construction personnel for the CSSI and those involved in the delivery of it.	Section 5.7.1
A26	The Proponent may engage more than one ER for the CSSI, in which case the functions to be exercised by an ER under the terms of this approval may be carried out by any ER that is approved by the Planning Secretary for the purposes of the CSSI.	Noted
A27	For the duration of the work until the commencement of operation, or as agreed with the Planning Secretary, the approved ER must: a) receive and respond to communication from the Planning Secretary in relation to the environmental performance of the CSSI; b) consider and inform the Planning Secretary on matters specified in the terms of this approval; c) consider and recommend to the Proponent any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community; d) review documents identified in Conditions A10, A17, C1, C4 and C11 and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this approval and if so: (i) make a written statement to this effect before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary); or (ii) make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Planning Secretary / Department for information or are not required to be submitted to the Planning Secretary/Department); e) regularly monitor the implementation of the documents listed in Conditions A10, A17, C1, C4 and C11 to ensure implementation is being carried out in accordance with the document and the terms of this approval; f) as may be requested by the Planning Secretary, help plan or attend audits of the development commissioned by the Department including scoping audits, programming audits, briefings and site visits, but not independent environmental audits required under Condition A38 of this approval; g) as may be requested by the Planning Secretary, assist in the resolution of community complaints; h) consider or assess the impacts of minor ancillary facilities comprising lunch sheds, office sheds and portable toilet facilities as required by Condition A19 of this approval; i) consider any minor amendments to be made to the Ancillary Site Establishment Management Plan, CEMP, CEMP Sub-plans and monitoring programs without increasing impacts to nearby receivers or that comprise updating or are of an administrative nature, and are consistent with the terms of this approval	Section 5.7.1

MCoA	Condition Requirements	Manner of compliance
	and the CEMP, CEMP Sub-plans and monitoring programs approved by the Planning Secretary and, if satisfied such amendment is necessary, approve the amendment. This does not include any modifications to the terms of this approval; j) prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, an Environmental Representative Monthly Report providing the information set out in the Environmental Representative Protocol under the heading "Environmental Representative Monthly Reports." The Environmental Representative Monthly Report must be submitted within seven days following the end of each month for the duration of the ER's engagement for the CSSI, or as otherwise agreed by the Planning Secretary; and k) assess the impacts of activities as required by the Low Impact Works definition.	
A28	The Proponent must provide the ER with all documentation requested by the ER in order for the ER to perform their functions specified in Condition A27 (including preparation of the ER monthly report), as well as: a) the complaints register (to be provided on a weekly basis or as requested); and b) a copy of any assessment carried out by the Proponent of whether proposed work is consistent with the approval (which must be provided to the ER before the commencement of the subject work).	Section 5.7.1
A29	A suitably qualified and experienced Acoustics Advisor(s) (AA) in noise and vibration management, who is independent of the design and construction personnel, must be nominated by the Proponent and engaged for the duration of work (as required by Condition A32) and for no less than six months following completion of construction of the CSSI.	Section 5.7.1
A30	Work must not commence until an AA has been nominated by the Proponent and approved by the Planning Secretary.	Section 5.7.1 NVMP (CEMP Appendix D)
A31	The Proponent must cooperate with the AA by: a) providing access to noise and vibration monitoring activities as they take place; b) providing for review of noise and vibration plans, assessments, monitoring reports, data and analyses undertaken; and c) considering any recommendations to improve practices and demonstrating, to the satisfaction of the AA, why any recommendation is not adopted.	Section 5.7.1 NVMP (CEMP Appendix D)
A32	The Proponent may nominate additional suitably qualified and experienced persons to assist the lead AA for the Planning Secretary's approval.	Noted
A33	Any activities generating noise in excess of 5 dB(A) above the 'Noise affected' Noise Management Levels (NMLs) derived from the Interim Construction Noise Guideline (DECC, 2009) (ICNG) must not commence until an AA, nominated under Condition A29 of this approval, has been approved by the Planning Secretary.	Section 5.7.1 NVMP (CEMP Appendix D)

MCoA	Condition Requirements	Manner of compliance
A34	The approved AA must: a) receive and respond to communication from the Planning Secretary in relation to the performance of the CSSI in relation to noise and vibration; b) consider and inform the Planning Secretary on matters specified in the terms of this approval relating to noise and vibration; c) consider and recommend, to the Proponent, improvements that may be made to avoid or minimise adverse noise and vibration impacts; d) review all proposed night-time works to determine if sleep disturbance would occur and recommend measures to avoid sleep disturbance or appropriate additional alternative mitigation measures; e) review all noise and vibration documents required to be prepared under the terms of this approval and, should they be consistent with the terms of this approval, endorse them before submission to the Planning Secretary (if required to be submitted to the Planning Secretary) or before implementation (if not required to be submitted to the Planning Secretary); f) regularly monitor the implementation of all noise and vibration documents required to be prepared under the terms of this approval to ensure implementation is in accordance with what is stated in the document and the terms of this approval; g) notify the Planning Secretary of noise and vibration incidents in accordance with Conditions A43 and A45 of this approval; h) in conjunction with the ER, the AA must: (i) as may be requested by the Planning Secretary or Community Complaints Mediator (required by Condition B12), help plan, attend or undertake audits of noise and vibration management of the CSSI including briefings, and site visits, (ii) in the event that conflict arises between the Proponent and the community in relation to the noise and vibration performance of the CSSI, follow the procedure in theCommunity Communication Strategy approved under Condition B2 to attempt to resolve the conflict, and if it cannot be resolved, notify the Planning Secretary, (iii) consider relevant minor amendments made to the Ancillary Site Establishment Management Plan, CEMP, relevant sub-plans and noise and vibration monitoring programs that require updating or are of an administrative nature, and are consistent with the terms of this approval and the management plans and monitoring programs approved by the Planning Secretary and, if satisfied such amendment is necessary, endorse the amendment, (this does not include any modifications to the terms of this approval), (iv) review the noise impacts of minor construction ancillary facilities, and (v) prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, a Monthly Noise and Vibration Report detailing the AA's actions and decisions on matters for which the AA was responsible in the preceding month. The Monthly Noise and Vibration Report must be	Section 5.7.1 NVMP (CEMP Appendix D)

MCoA	Condition Requirements	Manner of compliance
	submitted within seven days following the end of each month for the duration of the AA's engagement for the CSSI, or as otherwise agreed by the Planning Secretary.	
A35	The Department must be notified in writing of the dates of commencement of construction and operation at least one month before those dates.	Noted
A36	If the construction or operation of the CSSI is to be staged, the Department must be notified in writing at least one month before the commencement of each stage, of the date of the commencement of that stage.	Noted
A37	Proposed independent auditors must be agreed to in writing by the Planning Secretary prior to the commencement of an Independent Audit. This condition does not apply to the engagement of auditors required under Condition E145.	Refer to Section 5.13 & Table 5-3 & Table 5-4
A38	Independent Audits of the CSSI must be conducted and carried out in accordance with the Independent Audit Post Approval Requirements (DPIE, 2020).	Refer to Section 5.13 & Table 5-3 & Table 5-4
A39	The Planning Secretary may require the initial and subsequent Independent Audits to be undertaken at different times to those specified above, upon giving at least four weeks notice (or timing as stipulated by the Planning Secretary) to the Proponent of the date upon which the audit must be commenced.	Refer to Section 5.13 & Table 5-3 & Table 5-4
A40	In accordance with the specific requirements in the Independent Audit Post Approval Requirements (DPIE, 2020), the Proponent must: a) review and respond to each Independent Audit Report prepared under Condition A38 or Condition A39; b) submit the response to the Planning Secretary; and c) make each Independent Audit Report and response to it publicly available 60 days after submission to the Planning Secretary, or as otherwise agreed by the Planning Secretary.	Refer to Section 5.13 & Table 5-3 & Table 5-4
A41	Independent Audit Reports and the Proponent's response to audit findings must be submitted to the Planning Secretary within two months of undertaking the independent audit site inspection as outlined in the Independent Audit Post Approval Requirements (DPIE, 2020).	Refer to Section 5.13 & Table 5-3 & Table 5-4
A42	Notwithstanding the requirements of the Independent Audit Post Approval Requirements (DPIE, 2020), the Planning Secretary may approve a request for ongoing independent operational audits to be ceased, where it has been demonstrated to the Planning Secretary's satisfaction that independent operational audits have demonstrated operational compliance.	Not Applicable
A43	The Planning Secretary must be notified via the Major Projects Website immediately after the Proponent becomes aware of an incident. The notification must identify the CSSI (including the application number and the name of the CSSI if it has one) and set out the location and nature of the incident.	Section 5.11

MCoA	Condition Requirements	Manner of compliance
A44	Subsequent notification must be given and reports submitted in accordance with the requirements set out in Appendix A.	Section 5.11
A45	The Planning Secretary must be notified via the Major Projects Website within seven days after the Proponent becomes aware of any non-compliance. The notification must identify the CSSI (including the application number and the name of the CSSI if it has one), set out the condition/s that is non-compliant, the nature of the breach; the reason for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	Section 5.15.1
A46	A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	Section 5.15.1
A47	All heavy vehicles used for spoil haulage must be clearly marked on the sides and rear with the project name and CSSI application number to enable immediate identification by a person viewing the heavy vehicle. Details of the project identification markings must be submitted to the Planning Secretary for approval prior to the heavy vehicles used for spoil haulage being utilised for the CSSI.	TTAMP (CEMP Appendix B)
A48	The CSSI name; application number; telephone number, postal address and email address required under Condition B8 of this approval must be made available on site boundary fencing / hoarding at each ancillary facility before the commencement of construction. This information must also be provided on the website required under Condition B15 of this approval.	Section 5.18
B1	A Community Communication Strategy must be prepared to provide mechanisms to facilitate communication about construction and operation of the CSSI with: a) the community (including adjoining affected landowners and businesses, and others directly impacted by the CSSI); and b) the relevant councils, EPA, EESG, NSW Health, Heritage NSW, DPIE Water, and Sydney Water, as applicable. The Strategy must address who (the Proponent, Independent Appointments and/or construction contractor) will engage with the community, relevant councils and agencies, how they will engage and the timing of engagements.	Section 5.10.3 & CCS
B2	The Community Communication Strategy must: a) identify people, organisations, councils and agencies to be consulted during the design and work phases; b) identify details of the community demographics; c) set out procedures and mechanisms for the regular distribution of accessible information including to LOTE and CALD and vulnerable communities about or relevant to the CSSI; d) identify opportunities for education within the community about construction sites; e) detail the measures for advising the community in advance of upcoming construction including upcoming out-of-hours work as required by Condition E83 and blasting activities;	Section 5.10.3 & CCS

MCoA	Condition Requirements	Manner of compliance
	f) provide for the formation of issue or location-based community forums that focus on key environmental management issues of concern to the relevant community(ies) for the CSSI; g) detail the role and responsibilities of the Public Liaison Officer(s) engaged under Condition B6; and h) set out procedures and mechanisms: (i) through which the community can discuss or provide feedback to the Proponent 24 hours a day, seven days per week (ii) through which the Proponent will respond to enquiries or feedback from the community; and (iii) to resolve any issues and mediate any disputes that may arise in relation to the environmental management and delivery of the CSSI, including disputes regarding rectification or compensation.	
B3	The Community Communication Strategy must be submitted to the Planning Secretary and approved prior to the commencement of construction, unless otherwise agreed by the Planning Secretary.	Section 5.10.3 & CCS
B4	Construction for the purposes of the CSSI must not commence until the Community Communication Strategy has been approved by the Planning Secretary.	Section 5.10.3 & CCS
B5	The Community Communication Strategy, as approved by the Planning Secretary, must be implemented for the duration of the work and for 12 months following the completion of construction.	Section 5.10.3 & CCS
B6	A Public Liaison Officer must be appointed for construction ancillary facilities and for utility work to assist the public with questions and complaints they may have at any time during construction. The Public Liaison Officer must be available at all times during the operation of ancillary facilities and or when utility work is occurring.	CCS
B7	A Complaints Management System must be prepared and implemented before the commencement of any Work and maintained for the duration of construction and for a minimum for 12 months following completion of construction of the CSSI.	Section 5.10.4 & CCS
B8	The following information must be available to facilitate community enquiries and manage complaints one month before the commencement of work and for 12 months following the completion of construction: a) a 24- hour telephone number for the registration of complaints and enquiries about the CSSI; b) a postal address to which written complaints and enquires may be sent; c) an email address to which electronic complaints and enquiries may be transmitted; and d) a mediation system for complaints unable to be resolved. This information must be accessible to all in the community regardless of age, ethnicity, disability or literacy level.	Section 5.10.4 & CCS
B9	A Complaints Register must be maintained recording information on all complaints received about the CSSI during the carrying out of any work and for a minimum of 12 months following the completion of construction. The Complaints Register must record the:	Section 5.10.4 & CCS

MCoA	Condition Requirements	Manner of compliance
	a) number of complaints received; b) the date and time of the complaint; c) the method by which the complaint was made; d) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; e) nature of the complaint; f) means by which the complaint was addressed and whether resolution was reached, with or without mediation; and g) if no action was taken, the reason(s) why no action was taken. Complainants must be advised that the Complaints Register may be forwarded to Government agencies to allow them to undertake their regulatory duties.	
B10	The Complaints Register must be provided to the Planning Secretary upon request, within the timeframe stated in the request.	Section 5.10.4 & CCS
B11	A Community Complaints Mediator that is independent of the design and construction personnel must be nominated by the Proponent, approved by the Planning Secretary and engaged during work associated with the CSSI. The nomination of the Community Complaints Mediator must be submitted to the Planning Secretary for approval within one month before the commencement of work.	CCS
B12	The role of the Community Complaints Mediator is to address any complaint where a member of the public is not satisfied by the Proponent's response. Any member of the public that has lodged a complaint which is registered in the Complaints Management System identified in Condition B7 may ask the Community Complaints Mediator to review the Proponent's response. The application must be submitted in writing and the Community Complaints Mediator must respond within 28 days of the request being made or other specified timeframe agreed between the Community Complaints Mediator and the member of the public.	CCS
B13	The Community Complaints Mediator will: a) review any unresolved disputes if the procedures and mechanisms under Condition B2(h) (iii) do not satisfactorily address complaints; and b) make recommendations to the Proponent to satisfactorily address complaints, resolve disputes or mitigate against the occurrence of future complaints or disputes.	CCS
B14	The Community Complaints Mediator will not act before the Complaints Management System required by Condition B7 has been executed for a complaint and will not consider issues such as property acquisition, where other dispute processes are provided for in this approval or clear government policy and resolution processes are available, or matters which are not within the scope of this CSSI.	CCS

MCoA	Condition Requirements	Manner of compliance
B15	A website or webpage providing information in relation to the CSSI must be established before commencement of work and be maintained for the duration of construction, and for a minimum of 24 months following the completion of construction. The following up-to-date information (excluding confidential, private, commercial information or any other information that the Planning Secretary has approved to be excluded) must be published before the relevant work commences and maintained on the website or dedicated pages including: a) information on the current implementation status of the CSSI; b) a copy of the documents listed in Condition A1, and any documentation relating to any modifications made to the CSSI or the terms of this approval; c) a copy of this approval in its original form, a current consolidated copy of this approval (that is, including any approved modifications to its terms), and copies of any approval granted by the Minister to a modification of the terms of this approval; d) a copy of each statutory approval, licence or permit required and obtained in relation to the CSSI; e) a current copy of the final version of each document required under the terms of this approval; and f) a copy of the audit reports required under this approval. Where the information / document relates to a particular work or is required to be implemented, it must be published before the commencement of the relevant work to which it relates or before its implementation. All information required in this condition is to be provided on the Proponent's website, ordered in a logical sequence and easy to navigate.	Section 4.4 & CCS
C1	A Construction Environmental Management Plan (CEMP) must be prepared having regard to the Environmental Management Plan Guideline for Infrastructure Projects (Department of Planning, Industry and Environment, 2020). The CEMP must detail how the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1 will be implemented and achieved during construction.	This CEMP
C2	The CEMP must provide: a) a description of activities to be undertaken during construction (including the scheduling of construction); b) details of environmental policies, guidelines and principles to be followed in the construction of the CSSI; c) a program for ongoing analysis of the key environmental risks arising from the activities described in subsection (a) of this condition, including an initial risk assessment undertaken before the commencement of construction of the CSSI; d) details of how the activities described in subsection (a) of this condition will be carried out to: (i) meet the performance outcomes stated in the documents listed in Condition A1; and (ii) manage the risks identified in the risk analysis undertaken in subsection (c) of this condition; e) an inspection program detailing the activities to be inspected and frequency of inspections; f) a protocol for managing and reporting any: (i) incidents; and	Section 1.2

<table>
<tr><th>MCoA</th><th>Condition Requirements</th><th>Manner of compliance</th></tr>
<tr><td></td><td>(ii) non-compliances with this approval or statutory requirements;
g) procedures for rectifying any non-compliance with this approval identified during compliance auditing, incident management or at any time during construction;
h) a list of all the CEMP Sub-plans required in respect of construction, as set out in Condition C4. Where staged construction of the CSSI is proposed, the CEMP must also identify which CEMP Sub-plan applies to each of the proposed stages of construction;
i) a description of the roles and environmental responsibilities for relevant employees and their professional / organisational relationship with the ER;
j) for training and induction for employees, including contractors and sub-contractors, in relation to environmental and compliance obligations under the terms of this approval;
k) for periodic review and update of the CEMP and all associated plans and programs; and
l) the outcomes of consultation with government agencies in accordance with Condition A5.</td><td></td></tr>
<tr><td>C3</td><td>The CEMP must be endorsed by the ER and then submitted to the Planning Secretary for approval no later than one month before the commencement of construction, or where construction is staged no later than one month before the commencement of that stage.</td><td>This CEMP</td></tr>
<tr><td>C4</td><td>The following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A5.
<table>
<tr><th></th><th>Required CEMP Sub-plan</th><th>Relevant government agencies to be consulted for each CEMP Sub-plan</th></tr>
<tr><td>(a)</td><td>Traffic, transport and access</td><td>Relevant council(s)</td></tr>
<tr><td>(b)</td><td>Noise and vibration</td><td>NSW Health, relevant council(s)</td></tr>
<tr><td>(c)</td><td>Flora and Fauna</td><td>DPI Fisheries, DPE Water, EESG, and relevant council(s)</td></tr>
<tr><td>(d)</td><td>Air quality</td><td>NSW Health, and relevant council(s)</td></tr>
<tr><td>(e)</td><td>Soil and surface water</td><td>DPE Water, EHG, EPA, Sydney Water (if Sydney Water’s assets are affected) and relevant council(s)</td></tr>
<tr><td>(f)</td><td>Groundwater</td><td>DPE Water, EHG, EPA, Sydney Water (where it is proposed to discharge groundwater into Sydney Water’s assets) and relevant council(s)</td></tr>
<tr><td>(g)</td><td>Maritime Heritage</td><td>Heritage NSW and relevant council(s)</td></tr>
<tr><td>(h)</td><td>Non-Aboriginal Heritage</td><td>Heritage NSW and relevant council(s)</td></tr>
<tr><td>(i)</td><td>Aboriginal Cultural Heritage</td><td>Heritage NSW</td></tr>
</table></td><td>Section 4.2
Appendices: B to J</td></tr>
<tr><td>C5</td><td>The CEMP Sub-plans must state how:</td><td>Section 4.2</td></tr>
</table>

MCoA	Condition Requirements	Manner of compliance
	a) the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved; b) the mitigation measures identified in the documents listed in Condition A1 will be implemented; c) the relevant terms of this approval will be complied with; and d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles.	Appendices: B to J
C6	The Flora and Fauna Management CEMP Sub-Plan must include, but not be limited to: ~~a) details of the measures to minimise disturbance to marine vegetation and rocky reefs to the minimum extent necessary;~~ ~~b) details of the measures to minimise disturbance to habitat associated with White's seahorse (Hippocampus whitei);~~ ~~c) details of the measures to minimise disturbance to the Large Bent-winged Bat (Miniopterus orianae oceanensis) roosting site at Waverton, including the requirements of Condition E41;~~ ~~d) details and measures to identify Little Penguins (Eudyptula minor) near maritime construction sites including employing qualified spotters, and the stop work procedure upon sighting of the species;~~ e) details for undertaking pre-clearing/demolition inspections for native fauna including threatened species by a suitably qualified ecologist, of any vegetation to be cleared and any buildings or structures identified as potential roosting habitat for microbats that are to be demolished or refurbished; methods and procedures for welfare and relocation of displaced fauna; and management/offset measures; and f) details of a dewatering plan of the stormwater harvesting storage facility / dam at Cammeray Golf Course including: (i) a methodology of relocating native fauna species known to inhabit and/or use the dam; (ii) the location and suitability of the proposed relocation sites; and (iii) any potential impacts of relocating the fauna to the relocation sites. g) details of the measures to minimise disturbance to and monitor the Powerful Owl (Ninox strenua) in Lane Cove National Park during construction and operation of the proposed Wicks Road Construction Support Site (Mod 1), as described in Condition A1. The measures and monitoring requirements must be developed by an appropriately qualified ecologist with experience in Powerful Owl in consultation with BirdLife Australia, EHG and NPWS, and monitoring data shared with BirdLife Australia, EHG and NPWS and the Planning Secretary when requested.	Condition C6 a) to d) have been removed as per MOD2. Condition C6 f) and g) is not applicable to Stage 3B or 3C of the project. FFMP (CEMP Appendix C)
C7	The Maritime Heritage Management CEMP Sub-plan must: a) be prepared in consultation with a suitably qualified and experienced maritime archaeologist; b) detail artefact management procedures;	Not Applicable

<table>
<tr><th>MCoA</th><th>Condition Requirements</th><th>Manner of compliance</th></tr>
<tr><td></td><td>c) outline relevant work method requirements and maritime heritage inductions tailored for each type of work activity;
d) identify exclusion zones, archival recording requirements, baseline and periodic monitoring protocols (including before and during construction), and final site inspections within three months of completion of works for the following maritime heritage sites:
(iv) Collapsed wharf, BP site, Berrys Bay;
e) detail requirements for any mitigation, recovery or archaeological excavations.

Should further assessment determine that the heritage sites identified in (d) of this condition are not heritage item(s), the requirements of Condition C7(d) do not apply.</td><td></td></tr>
<tr><td>C9</td><td>The CEMP Sub-plans must be submitted to the Planning Secretary for approval along with, or subsequent to, the submission of the CEMP but in any event, no later than one month before construction.</td><td>CEMP Appendices: B to J</td></tr>
<tr><td>C10</td><td>Construction must not commence until the CEMP and all CEMP Sub-plans have been approved, unless otherwise agreed by the Planning Secretary. The CEMP and CEMP Sub-plans, as approved by the Planning Secretary, including any minor amendments approved by the ER must be implemented for the duration of construction. Where construction of the CSSI is staged, construction of a stage must not commence until the CEMP and sub-plans for that stage have been endorsed by the ER and approved by the Planning Secretary.</td><td>Noted</td></tr>
<tr><td>C11</td><td>The following Construction Monitoring Programs must be prepared in consultation with the relevant government agencies identified for each to compare actual performance of construction of the CSSI against the performance predicted in the documents listed in Condition A1 or in the CEMP:
<table>
<tr><th></th><th>Required Construction Monitoring Programs</th><th>Relevant government agencies to be consulted for each Construction Monitoring Program</th></tr>
<tr><td>(a)</td><td>Noise and Vibration Monitoring Program</td><td>EPA</td></tr>
<tr><td>(b)</td><td>Air Quality Monitoring</td><td>EPA</td></tr>
<tr><td>(c)</td><td>Surface Water Monitoring Program</td><td>DPE Water, (Sydney Water if any Sydney Water assets are impacted), EPA, EHG (as it relates to Wicks Road Construction Support Site [Mod 1], as described in Condition A1).</td></tr>
<tr><td>(d)</td><td>Groundwater Monitoring Program</td><td>DPE Water, EPA</td></tr>
</table></td><td>Section 4.2
NVMP (CEMP Appendix D)
SSWMP (CEMP Appendix E)
GWMP (CEMP Appendix F)
AQMP (CEMP Appendix I)</td></tr>
<tr><td>C12</td><td>Each Construction Monitoring Program must provide:
a) details of baseline data available;
b) details of baseline data to be obtained and when;
c) details of all monitoring of the project to be undertaken;</td><td>NVMP (CEMP Appendix D)
SSWMP (CEMP Appendix E)
GWMP (CEMP Appendix F)
AQMP (CEMP Appendix I)</td></tr>
</table>

MCoA	Condition Requirements	Manner of compliance
	d) the parameters of the project to be monitored; e) the frequency of monitoring to be undertaken; f) the location of monitoring; g) the reporting of monitoring results and analysis results against relevant criteria; h) details of the methods that will be used to analyse the monitoring data; i) procedures to identify and implement additional mitigation measures where the results of the monitoring indicate unacceptable project impacts; j) a consideration of SMART principles; k) any consultation to be undertaken in relation to the monitoring programs; and l) any specific requirements as required by Conditions C13 to C14.	
C13	The Noise and Vibration Monitoring Program must include: a) noise and vibration monitoring locations, including for ground borne noise and vibration at Birchgrove and Waverton in the vicinity of the launch and receival chambers, determined in consultation with the AA to confirm construction noise and vibration levels; b) for the purposes of (a), noise monitoring must be undertaken during the day, evening and night-time periods and within the first month of work as well as throughout the construction period and cover the range of activities being undertaken at the sites; c) a protocol for reviewing the implemented management and mitigation measures, based on the monitoring results, to confirm they are consistent with the CEMP Subplan (Condition C4b), and to identify any additional management and mitigation measures that must be implemented; and d) a process to undertake real time noise and vibration monitoring. The results of the monitoring must be readily available to the construction team, Proponent, ER and AA. The Planning Secretary and EPA must be provided with access to the results on request.	NVMP (CEMP Appendix D)
C14	The Groundwater Monitoring Program must include: a) results from existing monitoring bores and from additional monitoring bores required following a review of the monitoring bore network, with the review based on actual results of existing monitoring and groundwater modelling findings in relation to the final tunnel detailed design; b) daily measurement of the amount of water discharged from the water treatment plants; c) water quality testing of the water discharged from treatment plants; d) monitoring of groundwater levels in aquifers adjacent to the tunnel alignment; e) monitoring of groundwater levels, electrical conductivity and temperature in key locations between saline water bodies and the tunnel (including beneath high risk sites for contamination); f) measures to record or otherwise estimate and report groundwater inflows into the tunnels during their construction;	GWMP (CEMP Appendix F)

MCoA	Condition Requirements	Manner of compliance
	g) methods for providing the data collected under (a) and (b) to Sydney Water where discharges are directed to their assets; and h) a method for providing the groundwater monitoring data to DPIE Water every three months during construction of the tunnels and portals. Note: With regards to monitoring data to be provided to DPIE Water, the format of the dataset must be both in a tabulated and electronic quality-controlled data (csv, excel) ready to use format.	
C17	The Construction Monitoring Programs must be developed in consultation with relevant government agencies as identified in Condition C11. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant Construction Monitoring Programs, including copies of all correspondence from those agencies as required by Condition A5.	NVMP (CEMP Appendix D) SSWMP (CEMP Appendix E) GWMP (CEMP Appendix F) AQMP (CEMP Appendix I)
C18	The Construction Monitoring Programs must be endorsed by the ER and then submitted to the Planning Secretary for approval at least one month before the commencement of construction.	
C19	Unless otherwise agreed with the Planning Secretary, construction must not commence until all of the relevant Construction Monitoring Programs have been approved by the Planning Secretary, and all relevant baseline data for the specific construction activity has been collected.	
C20	The Construction Monitoring Programs, as approved by the Planning Secretary including any minor amendments approved by the ER must be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the Planning Secretary, whichever is the greater.	
C21	The results of the Construction Monitoring Programs must be submitted to the Planning Secretary, and relevant regulatory agencies, for information in the form of a Construction Monitoring Report at the frequency identified in the relevant Construction Monitoring Program. Note: Where a relevant CEMP Sub-plan exists, the relevant Construction Monitoring Program may be incorporated into that CEMP Sub-plan.	
D1	Operational management plans are not applicable to this phase of works and have not been included.	
E1	Measures must be implemented to minimise and manage the emission of dust, odour and other air pollutants during construction and operation.	AQMP (CEMP Appendix I)
E2	Prior to finalising the detailed design of the CSSI and establishing the ambient air quality monitoring stations required under Condition E26, the Proponent must establish an Air Quality Community Consultative Committee (AQCCC) to provide advice prior to and during operation. The AQCCC must: a) be comprised of at least: (i) two representatives from the Proponent and tunnel operator,	The AQCCC will be established by TfNSW

MCoA	Condition Requirements	Manner of compliance
	(ii) one representative from each of the relevant councils, whose attendance is only required when considering matters relevant to their respective local government area, (iii) three representatives from each local community adjacent to each 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 and approved by the Planning Secretary, and (iv) a Chair who is independent from the companies involved in the design, construction and operation of the CSSI put forward by the Proponent and approved by the Planning Secretary; b) meet at least four times a year, or as otherwise approved by the Planning Secretary with consideration to advice from the Chair; c) review and provide advice on the location of the ambient air quality monitoring stations required under Condition E26, and operational stage documents, compliance tracking reports, audit reports, and complaints, as they relate to ambient air quality; and d) provide advice on the wider dissemination of monitoring results and other information on air quality issues. The AQCCC must operate for up to two years after commencement of operation, or as otherwise approved or directed by the Planning Secretary, following advice from the Chair. The AQCCC may comprise the same members of the AQCCC established under CSSI approvals for the WestConnex M4-M5 Link project (SSI 7485) in relation to the ventilation outlet located in the Rozelle Railyards. In the event that a tunnel operator has not been appointed prior to finalisation of the detailed design, its two representatives must be appointed to the AQCCC once the tunnel operator has been engaged. Note: the EPA may be invited as an observer to the AQCCC.	
E3	The Proponent must engage an Air Quality Independent Reviewer (AQIR) who is independent of the project design and construction personnel and has appropriate skill and experience in road tunnel ventilation design, air quality monitoring design, and reporting. The AQIR must be approved by the Planning Secretary and engaged by the Proponent prior to the finalisation of the detailed design. Their appointment must be made publicly available. The AQIR cannot be the independent auditor required for the purposes of Condition A38. Nothing in this condition prevents the Proponent from engaging an AQIR who is expert in in-tunnel ventilation and ventilation outlet design and one who is expert in ambient air quality monitoring.	The AQIR will be established by TfNSW
E4	Prior to commencing operation, the AQIR(s) must review and endorse the adequacy of the following as per the requirements of Conditions E11, E20, E22, E27, E28, E29, E33 and E36. a) in-tunnel ventilation and ventilation outlet design; and b) air quality monitoring.	ACCIONA will provide documents to the AQIR to allow the AQIR to fulfil its role as outlined in this condition.

<table>
<tr><th>MCoA</th><th>Condition Requirements</th><th>Manner of compliance</th></tr>
<tr><td>E5</td><td>The tunnel ventilation system must be designed and operated so that the average concentrations of CO and NO2, calculated along the length of the tunnel, do not exceed the concentration limit specified for that pollutant in Table 1.
Table 1: In-tunnel average limits along length of tunnel
<table>
<tr><th>Pollutant</th><th>Concentration Limit</th><th>Units of measurement</th><th>Averaging period</th></tr>
<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_2</td><td>0.5</td><td>ppm</td><td>Rolling 15-minute</td></tr>
</table></td><td rowspan="3">Section 5.5</td></tr>
<tr><td>E6</td><td>The concentration of CO as measured at any single point in the tunnel must not exceed the concentration limit specified in Table 2 under all traffic scenarios.
Table 2: In-tunnel single point exposure limits
<table>
<tr><th>Pollutant</th><th>Concentration Limit</th><th>Units of measurement</th><th>Averaging period</th></tr>
<tr><td>CO</td><td>200</td><td>ppm</td><td>Rolling 3–minute</td></tr>
</table></td></tr>
<tr><td>E7</td><td>The tunnel ventilation system must be designed and operated so that the visibility in the tunnel does not exceed the level specified in Table 3.
Table 3: In-tunnel visibility limits along length of tunnel
<table>
<tr><th>Parameter</th><th>Average extinction co-efficient Limit</th><th>Units of measurement</th><th>Averaging period</th></tr>
<tr><td>Visibility</td><td>0.005</td><td>m^{-1}</td><td>Rolling 15–minute</td></tr>
</table></td></tr>
<tr><td>E8</td><td>The limits specified in Conditions E5, E6, E7, E21 and E25 do not apply in an emergency relating to the operation of the CSSI. For the purpose of this condition, an emergency is an event that poses risk to human life associated with operation, but does not include an event related to traffic volume or speed or the operation of the broader road network.</td><td>Noted.</td></tr>
<tr><td>E9</td><td>The Proponent must continuously monitor (by sampling and obtaining results from analysis) the pollutants within the tunnel specified in Conditions E5, E6, and E7. Monitoring must commence on the first day of operation and continue throughout operation.</td><td>Not Applicable to construction.</td></tr>
<tr><td>E10</td><td>The in-tunnel air quality monitoring system must undergo relative accuracy test audits at least every six months, or within another timeframe approved with the Planning Secretary.</td><td>Not Applicable to construction.</td></tr>
<tr><td>E11</td><td>The Proponent must develop a methodology for determining the number and location of monitoring stations inside the tunnel in consultation with the EPA. The number and location of monitoring stations must be determined prior to operation and permit the accurate monitoring and calculation of the pollutants listed in Conditions E5, E6, and E7. The number and location of monitoring stations must be independently verified by the AQIR prior to the operation of the CSSI. As a minimum, monitoring stations must be installed inside the tunnel near the base of the ventilation outlets, at incoming fresh air vents, near the entry portals, exit portals, and at tunnel and ramp junctions, unless otherwise approved by the Planning Secretary.</td><td>Not Applicable to construction.</td></tr>
</table>

MCoA	Condition Requirements	Manner of compliance
E12	Air quality monitoring data from all in-tunnel monitoring stations must be made available in as close to real time as possible, under the reporting requirements of Condition E35.	Not Applicable to construction.
E13	The Proponent must notify the Planning Secretary, EPA and Ministry of Health of any recordings above the limits specified in Conditions E5, E6, and E7 as early as possible and within 24 hours of the recorded event. This notification must provide details of the circumstances of the event, including: a) the nature and location of the event, including details relating to the cause; b) the timing and duration of the event; c) the extent and severity of the event; d) the measures employed to minimise the concentration levels, and to improve visibility levels if visibility levels were above the specified limit; e) the frequency of the event, including whether an event with the same or similar circumstances has occurred previously; and f) the date when the Proponent will submit a Tunnel Air Quality Management Systems Effectiveness Report in accordance with Condition E14.	Not Applicable to construction.
E14	A Tunnel Air Quality Management Systems Effectiveness Report must be prepared to detail the overall system performance, cause and major contributor of any exceedances. The report must include: a) the overall performance and concentration levels in the tunnel for the preceding six month period, including average and maximum levels and time periods; b) details of any instances throughout operation where pollutant concentration levels in the tunnel have exceeded the limits specified in Conditions E5, E6, and E7; and c) consideration of improvements and proposed changes to the tunnel air quality management system. The report must be submitted to the Planning Secretary for information no later than 12 months following the commencement of operation of the CSSI and within one month of any request made by the Planning Secretary.	Not Applicable to construction.
E15	Prior to operation, signage must be installed at each surface tunnel entrance and variable message signage provided at regular intervals throughout the tunnel to instruct tunnel users to close windows and turn on recirculated air. Relevant information about this instruction must also be provided on a website operated by the Proponent which is required to be maintained throughout operation.	Section 5.5
E16	The tunnel ventilation outlets must be constructed at the location specified in Appendix B. Note: The ventilation outlet at the Rozelle ventilation facility is being constructed as part of the M4-M5 Link and the location is specified in Appendix C of the Instrument of Approval for SSI 7485.	
E17	The ventilation outlets must be constructed to a tip height within the following ranges identified in Table 4.	

<table>
<tr><th>MCoA</th><th>Condition Requirements</th><th>Manner of compliance</th></tr>
<tr><td></td><td>Table 4: Ventilation Outlet Heights
<table>
<tr><th>Location</th><th>Outlet Height (metres AHD)</th></tr>
<tr><td>City West Link, Rozelle</td><td>the height of the ventilation facility at Rozelle was set in Condition E12 in the Instrument of Approval for WestConnex M4-M5 Link project SSI 7485</td></tr>
<tr><td>Warringah Freeway corridor to the north of Ernest Street, in Cammeray</td><td>Between 29 and 31 metres above ground elevation at the ventilation outlet site (102.0 to 104.1 AHD)</td></tr>
</table></td><td rowspan="5"></td></tr>
<tr><td>E18</td><td>The tunnel ventilation systems must be designed, constructed and operated so as to only release emissions from ventilation outlets and not from the portals or the tunnel support facilities, except for emergency smoke management purposes in the event of a fire in the tunnel or periodic testing of the system as defined in the OEMP required by Condition D1 or an EMS required under Condition D2.</td></tr>
<tr><td>E19</td><td>All tunnels must be designed and constructed so as to allow for future modification of the ventilation system if required to facilitate air quality limits and goals, if required.</td></tr>
<tr><td>E20</td><td>The AQIR, must review the in-tunnel ventilation and ventilation outlet design of the project to verify that:
a) the final design achieves the in-tunnel and ventilation outlet limits for all traffic conditions including congestion;
b) the predicted impacts of the final design are no greater than predicted in the documents listed Condition A1 for the equivalent operating condition; and
c) the ventilation system design has been optimised to achieve effective and responsive treatment of in-tunnel air quality and efficient energy consumption.

The operating scenarios used to model the final design should be the same as those used in the documents listed in Condition A1. Should the design review adopt a modelling program different to that used in the EIS, the EIS predictions must be re-modelled using the model adopted for the design review, to establish the predicted outcomes under part (b).
This verification must be submitted to the Planning Secretary for information prior to operation.</td></tr>
<tr><td>E21</td><td>The concentration of a pollutant discharged from the ventilation outlets must not exceed the respective limits specified for that pollutant in Table 5.</td></tr>
</table>

<table>
<tr><th>MCoA</th><th>Condition Requirements</th><th>Manner of compliance</th></tr>
<tr><td></td><td>
Table 5: Ventilation Outlet Mass Pollutant Concentration
<table>
<tr><th>Pollutant</th><th>100 percentile limit</th><th>Units of measurements</th><th>Averaging period</th><th>Reference conditions</th></tr>
<tr><td>Solid particles</td><td>1.1</td><td>mg/m^3</td><td>1 hour, or the minimum sampling period specified in the relevant test method, whichever is the greater</td><td>Dry, 273K, 101.3kPa</td></tr>
<tr><td>NO_2 or NO or both, as NO_2 equivalent</td><td>20</td><td>mg/m^3</td><td>1 hour block</td><td>Dry, 273K, 101.3kPa</td></tr>
<tr><td>NO_2</td><td>2.0</td><td>mg/m^3</td><td>1 hour block</td><td>Dry, 273K, 101.3kPa</td></tr>
<tr><td>CO</td><td>40</td><td>mg/m^3</td><td>1 hour rolling</td><td>Dry, 273K, 101.3kPa</td></tr>
<tr><td>VOC (as propane)</td><td>4.0</td><td>mg/m^3</td><td>1 hour rolling</td><td>Dry, 273K, 101.3kPa</td></tr>
</table>
</td><td></td></tr>
<tr><td>E22</td><td>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 in accordance with the methods and frequencies for the pollutant parameters specified in Table 6 and be undertaken at commencement of and throughout operation.
The adequacy of the monitoring equipment must be verified by the AQIR prior to the commencement of monitoring for compliance with the requirements set out in Table 6. The pollutant monitoring system must undergo relative accuracy test audits at least every six months, or within another timeframe approved by the Planning Secretary.</td><td></td></tr>
</table>

<table>
<tr><th>MCoA</th><th>Condition Requirements</th><th>Manner of compliance</th></tr>
<tr><td></td><td>
Table 6: Ventilation Outlet Emission Monitoring Methodologies
<table>
<tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Method[1]</th></tr>
<tr><td>Solid particles</td><td>mg/m^3</td><td>Continuous</td><td>Special Method 1[4]</td></tr>
<tr><td>PM_{10}</td><td>mg/m^3</td><td>Quarterly</td><td>OM-5</td></tr>
<tr><td>$PM_{2.5}$</td><td>mg/m^3</td><td>Quarterly</td><td>OM-5</td></tr>
<tr><td>NO_2 or NO or both, as NO_2 equivalent</td><td>mg/m^3</td><td>Continuous</td><td>CEM-2 & US EPA Procedure 1</td></tr>
<tr><td>NO_2</td><td>mg/m^3</td><td>Continuous</td><td>CEM-2 & US EPA Procedure 1</td></tr>
<tr><td>CO</td><td>mg/m^3</td><td>Continuous</td><td>CEM-4 & US EPA Procedure 1</td></tr>
<tr><td>VOC[2]</td><td>mg/m^3</td><td>Continuous</td><td>CEM-8 & US EPA Procedure 1</td></tr>
<tr><td>Speciated VOC</td><td>mg/m^3</td><td>Annual</td><td>TM-34</td></tr>
<tr><td>Speciated PAH[3]</td><td>µg/m^3</td><td>Annual</td><td>OM-6</td></tr>
<tr><th>Parameter</th><th>Units of measure</th><th>Frequency</th><th>Method[1]</th></tr>
<tr><td>Velocity</td><td>m/s</td><td>Continuous</td><td>CEM-6 & US EPA Procedure 1</td></tr>
<tr><td>Volumetric flow rate</td><td>m^3/s</td><td>Continuous</td><td>CEM-6 & US EPA Procedure 1</td></tr>
<tr><td>Moisture</td><td>%</td><td>Continuous</td><td>TM-22</td></tr>
<tr><td>Temperature</td><td>°C</td><td>Continuous</td><td>TM-2</td></tr>
<tr><th>Other</th><th>Units of measure</th><th>Frequency</th><th>Method[1]</th></tr>
<tr><td>Selection of sampling locations</td><td>N/A</td><td>N/A</td><td>TM-1</td></tr>
</table>
Notes:
1. Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA 2007) or an alternative method approved by the Planning Secretary in consultation with the EPA.
2. Expressed as n-propane equivalent and must include, but not be limited to: Benzene, Toluene, Xylenes, 1,3-Butadiene, Formaldehyde and Acetaldehyde.
3. Must include, but not limited to; 16 USEPA priority PAHs, namely; Naphthalene, Phenanthrene,Benz(a)anthracene, Benzo(a)pyrene, Acenapthylene, Anthracene, Chrysene, Indeno(1,2,3-cd)pyrene, Acenaphthene, Fluoranthene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Fluorene,Pyrene, Benzo(k)fluoranhtene, Benzo(g,h,i)perylene.
4. Special Method 1 means US EPA Performance Specification 11 or any modification thereof approved in writing by the EPA, and US EPA Procedure 2.
</td><td></td></tr>
<tr><td>E23</td><td>The Proponent must notify the Planning Secretary, EPA and Ministry of Health of any recordings above the emission limits (Above-Emission Limit Recording) in Condition E21 as soon as possible and within 24 hours of the recording.
This notification must provide details of the circumstances of the event, including:
a) the nature of the event;
b) the concentration levels that occurred;
c) the timing and duration of the event; and
d) the measures employed to minimise the concentration levels.</td><td>Not Applicable</td></tr>
<tr><td>E24</td><td>Within one month of any notification of Above-Emission Limit Recording, the Proponent must prepare and submit to the Planning Secretary for information a Report on Above-Emission Limit Recording that details the cause of the exceedance, the effectiveness of any action(s) taken in response to the exceedance and the options available to prevent recurrence.</td><td>Not Applicable</td></tr>
</table>

MCoA	Condition Requirements	Manner of compliance
	The Report on Above-Emission Limit Recording must include consideration of improvements to the tunnel air quality management system so as to achieve compliance with the ventilation outlet emission limits.	
E25	Should ambient monitoring of air pollutants exceed the following maximum concentrations, the provisions of Conditions E29, E30 and E31 will apply: 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); d) PM2.5 – 24 hour average of 25 µg/m3 (NEPM); e) PM10 – annual average of 25 µg/m3 (NEPM); and f) PM2.5 – annual average of 8 µg/m3 (NEPM). This condition does not apply to the ambient air quality changes caused by bushfires or other vents unrelated to the operation of the tunnel, as endorsed by the AQIR. Note: The notification and reporting obligations under Conditions E29, E30 and E31 relating to ambient monitoring will begin at the commencement of operation. The first annual average concentrations for PM10 and PM2.5 must be calculated on the first day the project has been in operation for 12 months and on a rolling basis thereafter.	Not Applicable
E26	The Proponent must monitor (by sampling and obtaining results by analysis) the pollutants and parameters specified in Table 7 using the sampling method, units of measure, and sampling frequency specified in the condition and table. Monitoring must be undertaken at the following locations as a minimum: a) two ground level receptors near the Rozelle ventilation outlet, at locations suitable for detecting any impact on air quality from the outlet (these locations may be the same as those established under WestConnex M4-M5 Link project SSI 7485); and b) two ground level receptors near the Cammeray ventilation outlet, at locations suitable for detecting any impact on air quality from the outlet.	Not Applicable

MCoA	Condition Requirements	Manner of compliance
	Table 7: Ambient Air Quality Monitoring Methodologies (see table below) Notes: 1. Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA, 2007) or as otherwise agreed by EPA. 2. 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). 3. 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). 4. TBD - location for meteorological monitoring station(s) to be representative of weather conditions likely to occur near the Rozelle and Cammeray ventilation outlets. 5. Appropriately modified to include size selective inlet for PM2.5 or as otherwise approved by the EPA.	
E27	The monitoring locations must be selected with the objective of achieving a like-for-like comparison of monitoring results with available pre-construction data. The locations must also allow for the review of the predicted local air quality outcomes described in the EIS against the results of the air quality monitoring as part of the independent environmental audit required under Condition A38. The location of the monitoring stations must be informed by the AQCCC and subject to landowner's and occupier's agreement. The location of the monitoring stations must be verified by the AQIR, taking into	Section 5.5

Pollutant	**Units of measurement**	**Averaging Period**	**Frequency**	**Method[1]**
NO	pphm	1-hour	Continuous	AM-12
NO_2	pphm	1-hour	Continuous	AM-12
NO_x	pphm	1-hour	Continuous	AM-12
PM_{10}	µg/m^3	24-hour	Continuous	AS3580.9.8-2008[2]
$PM_{2.5}$[5]	µg/m^3	24-hour	Continuous	AS3580.9.13-2013[3] or as otherwise agreed with the with the EPA
CO	ppm	1-hour,8-hour	Continuous	AM-6
Parameter[4]	**Units of measurement**	**Averaging Period**	**Frequency**	**Method[1]**
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 @ 10 m	K	1-hour	Continuous	AM-4
Other	**Units of measurement**	**Averaging Period**	**Frequency**	**Method[1]**
Siting	NA	NA	NA	AM-1 & AM-4

MCoA	Condition Requirements	Manner of compliance
	consideration advice from the EPA, and provided to the Planning Secretary for information prior to their installation. The establishment and operation of the monitoring stations must be undertaken in accordance with recognised Australian standards and undertaken by an organisation accredited by NATA for this purpose. 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. The ambient air quality monitoring system must undergo relative accuracy test audits at least every six months, or within another timeframe approved with the Planning Secretary.	
E28	The AQIR must ensure that the operating procedures and equipment to monitor and acquire ambient air quality data, meteorological data and emission data and all reporting procedures comply with NATA (or equivalent) requirements where such requirements exist. The Proponent must commence monitoring for at least 12 continuous months prior to operation and continue monitoring for at least two years following the commencement of operation. At the end of the two year operational monitoring period, the Proponent must review the need for the continued use of ambient monitoring stations in consultation with the AQCCC and EPA. Closure or discontinued use of an ambient monitoring station will require the approval of the Planning Secretary.	Section 5.5
E29	The Proponent must prepare an Ambient Air Quality Protocol for evaluating a potential measurement that exceeds the maximum concentrations in Condition E25. The Ambient Air Quality Protocol must be developed by the Proponent in consultation with the AQCCC and endorsed by the AQIR at least three months prior to the commencement of operation. The Ambient Air Quality Protocol must include: a) a process for notification of a recording above the ambient air quality maximum concentrations in Condition E25, subject to Condition E30; b) the template that would be used for the Report on Above-Maximum Concentration Recording, required by Condition E31; and c) a reporting process endorsed by the AQIR that facilitates a Report on Above-Maximum Concentration Recording. This condition does not apply to the ambient air quality changes caused by bushfires or other events unrelated to the operation of the tunnel.	Section 5.5
E30	The Proponent must notify the Planning Secretary, EPA and Ministry of Health of any recordings above the maximum concentrations (Above-Maximum Concentration Recording) in Condition E25 as soon as possible and within 24 hours of the recording. This notification must provide details of the circumstances of the event, including: a) the nature of the event; b) the concentration levels that occurred;	Not applicable

MCoA	Condition Requirements	Manner of compliance
	c) the timing and duration of the event; d) the measures employed to minimise the concentration levels; and e) the date when the Proponent will submit a Report on Above-Maximum Concentration Recording in accordance with Condition E31.	
E31	Within one month of any notification of Above-Maximum Concentration Recording, the Proponent must prepare and submit to the Planning Secretary, for information, a Report on Above- Maximum Concentration Recording that details the cause and major contributor of the exceedance, the effectiveness of any action(s) taken in response to the exceedance and the options available to prevent recurrence.	Not applicable
E32	Where the operation of the tunnel is identified to be a significant contributor to the recorded above-goal reading, the Report on Above-Maximum Concentration Recording 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 E19.	Not applicable
E33	The Proponent must develop and implement an Air Quality Reporting System for in-tunnel ventilation outlet emissions and ambient air quality prior to operation. The Air Quality Reporting System must be reviewed and verified by the AQIR prior to operation as meeting the requirements of Conditions E34 to E35. The Air Quality Reporting System and the AQIR verification must be made publicly available prior to operation.	Section 5.5
E34	The Air Quality Reporting System must meet minimum analytical reporting requirements for air pollution monitoring stations as specified in the Approved Methods of Modelling and Assessment of Air Pollutants in NSW (EPA, 2007, or as updated).	Section 5.5
E35	The Air Quality Reporting System must ensure that the following information is continually made publicly available, unless otherwise approved by the Planning Secretary: a) results of hourly updated real-time monitoring and relevant meteorological data in an easy to interpret format. This data must be preliminary until a quality assurance check has been undertaken by a person or organisation, who is accredited by NATA for this purpose; and b) annual report(s) on the results of the monitoring for the duration of the operation of the project. The first report must be made available within 15 months of the operation of the project and address the first 12 months of operation. Subsequent reports must address the previous 12 months of operation and be made publicly available no later than three months following the 12 month-period of operation which is the subject of the report. The reports must analyse and discuss the monitoring results, including any trends and variations in the data during the reporting period, and compare the results with previous reporting periods.	Not applicable
E36	Quality assurance (QA) and quality control (QC) measures for air quality and ventilation outlet emission monitoring data must be prepared and undertaken. This must include, but not be limited to: accreditation/quality systems;	Section 5.5

<table>
<tr><th>MCoA</th><th>Condition Requirements</th><th>Manner of compliance</th></tr>
<tr><td></td><td>staff qualifications and training; auditing; monitoring procedure; service and maintenance; equipment or system malfunction; and records/reporting. The QA/QC measures must be verified by the AQIR.</td><td></td></tr>
<tr><td>E37</td><td>Within 18 months of commencement of construction, the Proponent must provide data to councils detailing pollution concentrations at various heights and distances from the ventilation outlets to facilitate the planning of and assessment of new development in areas within a distance of 300 metres around the ventilation outlets which would be within a potential three-dimensional zone of affectation (buffer volume). As part of this process, the Proponent must meet all reasonable costs for any necessary amendments to planning instrument(s) required to implement the guidelines.</td><td>Section 5.5</td></tr>
<tr><td>E38</td><td>Prior to clearing of Acacia terminalis subsp. terminalis (Sunshine Wattle), the species credits in Table 8 must be retired. The retirement of credits must be carried out in accordance with the offset rules of the Biodiversity Conservation Act 2016 (BC Act).
Table 8: Species credits
<table>
<tr><th>Species (only for the below)</th><th>Number of Credits</th><th>In the below IBRA subregions</th></tr>
<tr><td>Acacia terminalis subsp. terminalis (Sunshine Wattle)</td><td>9</td><td>SYB07, Pittwater</td></tr>
</table></td><td>Not applicable</td></tr>
<tr><td>E38A</td><td>Prior to clearing PCT 4023 at the Emu Plains Ancillary Facility (WHT13), the species credits in Table 8A must be retired. The retirement of credits must be carried out in accordance with the offset rules of the Biodiversity Conservation Act 2016 (BC Act).
Table 8A: Ecosystem and species credits for the Emu Plains construction support site
<table>
<tr><th>Plant Community Type (PCT)</th><th>Number of Credits</th><th>In the below IBRA subregions</th></tr>
<tr><td>PCT4023: Coastal Valleys Swamp Oak Riparian Forest</td><td>9</td><td>Cumberland</td></tr>
<tr><th>Species (only for the below)</th><th>Number of Credits</th><th>In the below IBRA subregions</th></tr>
<tr><td>Myotis macropus (Southern Myotis)</td><td>11</td><td>Cumberland</td></tr>
</table></td><td>Not applicable to construction environmental management. Ecosystem and species credits will be retired by TfNSW or payment into the Biodiversity Conservation Fund will be made in accordance with E39 prior to clearing of areas related ecosystem and species credits.</td></tr>
<tr><td>E39</td><td>The requirement to retire credits in Condition E38 and E38A above may be satisfied by payment to the Biodiversity Conservation Fund of an amount equivalent to the class and number of species credits, as calculated by the Biodiversity Offsets Payment Calculator.</td><td>Not applicable to construction environmental management. Payment into the Biodiversity Conservation Fund will be made by TfNSW prior to clearing of areas related ecosystem and species credits in E38 and E38A.</td></tr>
</table>

MCoA	Condition Requirements	Manner of compliance
E40	Evidence of the retirement of credits or payment to the Biodiversity Conservation Fund in satisfaction of Condition E38 must be provided to the Planning Secretary prior to the clearing of the Acacia terminalis subsp. terminalis (Sunshine Wattle).	Not applicable to construction environmental management. Evidence of retirement of credits or payment into the Biodiversity Conservation Fund will be provided by TfNSW prior to clearing of the Acacia terminalis subsp. terminalis (Sunshine Wattle).
E40A	Evidence of the retirement of credits or payment to the Biodiversity Conservation Fund in satisfaction of Condition E38A must be provided to the Planning Secretary prior to clearing PCT 4023.	Not applicable to construction environmental management. Evidence of retirement of credits or payment into the Biodiversity Conservation Fund will be provided by TfNSW prior to clearing of areas related ecosystem and species credit in E38A.
E41	A Microbat Monitoring Program must be prepared to address impacts, detail mitigation measures and monitoring of the Large Bent-winged Bat (Miniopterus orianae oceanensis) identified at Balls Head Coal Loader. The Monitoring Program must include: a) all reasonable measures to avoid potential impacts from construction; b) details monitoring techniques, timing, duration and frequency/intensity to be used; c) ongoing monitoring and reporting requirements during construction; and d) contingency measures to address impacts attributable to the construction of the CSSI. The plan must be developed in consultation with an independent and appropriately qualified expert in microbat biology and behaviour, EHG, North Sydney Council and be submitted to the Planning Secretary for approval prior to work that impacts microbats. The approved plan must be implemented during construction of the CSSI.	FFMP (CEMP Appendix C)
E42	The Proponent must monitor microbat for the period specified in the Microbat Monitoring Program, or until it is demonstrated, to the satisfaction of the Coordinator General EESG, that all potential impacts on the Large Bent-winged Bat (Miniopterus orianae oceanensi) have ceased.	FFMP (CEMP Appendix C)
E43	If by the end of the period of monitoring an unacceptable impact threshold has occurred, and an assessment has determined that offsets are required , the Proponent must offset the impacts on the Large Bent-winged Bat. Offsets must be achieved by retirement of biodiversity credits, payment to the Biodiversity Conservation Fund or	FFMP (CEMP Appendix C)

MCoA	Condition Requirements	Manner of compliance
	the undertaking of other biodiversity conservation actions, as determined in consultation with and to the satisfaction of the Coordinator General EHG.	
E44	The Proponent must prepare and submit to the Planning Secretary for information: a) evidence confirming the class and number of biodiversity credits or other biodiversity conservation action required by Condition E43 within one month of receiving the notification of the satisfaction of the Coordinator General EESG a copy of the Credit Retirement Report; and b) evidence of the retirement of credits (or payment to the Biodiversity Conservation Fund), or the transfer of funds to EESG for the purposes of undertaking the biodiversity action(s), required by Condition E43, within six months of receiving the notification of the satisfaction of the Coordinator General EESG.	FFMP (CEMP Appendix C)
E48	Within three months of the removal of any native trees, the Proponent must consult with local community restoration/rehabilitation groups, Landcare groups, relevant councils, DPI Fisheries and any relevant public authorities to determine if there is an interest in the reuse of suitable timber and root balls for habitat enhancement and rehabilitation work. If there is an interest, native trees that are removed for the construction of the CSSI and that are greater than 25-30 centimetres in diameter and three metres in length must be salvaged and stored for a period of at least six weeks to enable collection by interested parties.	FFMP (CEMP Appendix C)
E49	Except as permitted by Condition E49A, The CSSI must be designed and implemented to limit changes to flood behaviour during the 1% AEP event as follows:: a) a maximum increase in inundation time of one hour; b) a maximum increase of 10 mm in inundation at the habitable room floor levels where habitable room flood levels are currently inundated; c) a maximum increase of 50 mm in inundation of land zoned as residential, commercial or industrial where the land is not currently inundated; and d) no inundation of habitable room floor levels which are not currently inundated. Measures identified in the documents listed in Condition A1 to not worsen flood characteristics or other measures that achieve the same outcomes, must be incorporated into the detailed design of the CSSI. The incorporation of these measures must be reviewed and endorsed by a suitably qualified and experienced person in consultation with directly affected landowners, EHG, NSW State Emergency Service (SES) and relevant councils.	Section 5.5
E49A	Where Condition E49 cannot be achieved during operation of the Emu Plains Ancillary Facility (WHT13) within the Boral Emu Plains site, alternative changes to flood behaviour may be agreed to in writing with Boral Limited. Any written agreement must be obtained prior to Works that will result in Condition E49 not being met.	Noted
E49B	A Flood Emergency Management Plan (FEMP) for the Emu Plains ancillary facility (WHT13) must be prepared by a suitably qualified, chartered professional engineer with skills and experience in hydrology and flood emergency management. The FEMP must be prepared in consultation with the NSW Reconstruction Authority and the NSW	Flood Emergency Management Plan

MCoA	Condition Requirements	Manner of compliance
	State Emergency Service prior to the commencement of Construction, or where there is more than 20 personnel and visitors on-site at any one time at WHT13. The FEMP is to facilitate self-directed evacuation or evasion and must include details of the actions to be undertaken before, during, and after a flood, how warnings will be monitored, the triggers for different actions, and the evacuation procedures to be followed. Actions should cover different stages of the development, including site establishment, use of the facility, and decommissioning of the Emu Plains ancillary facility (WHT13). The plan must be updated during the operation of the facility if there are changes in use that would impact on evacuation. The FEMP must address the provisions of the Flood Risk Management Manual (DPE, 2023) and the associated Floodplain Risk Management Guidelines, consider the full range of flood risks, the proposed use of the site, site access constraints and local area evacuation routes, and include: (a) flood awareness/education for construction site workers; (b) flood warden delegation and responsibilities during establishment, use and decommissioning; (c) temporary evacuation signage including clearly labelled direction of travel in the event of a flooding emergency; and (d) timing provisions for FEMP review. All parties involved in the establishment, use and decommissioning of the site must be issued with a copy of the FEMP and be notified of flood evacuation responsibilities. The FEMP must be implemented during Construction and be submitted to the Planning Secretary upon request. *Notes* *1. The FEMP may be staged so that actions can be developed and implemented to cover different stages of the development such as site establishment, operation and decommissioning.* *2. The reference to personnel and visitors does not include NSW government or Proponent representatives undertaking site inspections.* *3. In the event that the FEMP is finalised prior to Construction, maximum personnel and visitor numbers may be increased beyond the 20 personnel/visitor limit.*	
E49C	Before Work commences at WHT13, the following is required: (a) establish a procedure for regularly monitoring water levels and flood warnings at the Nepean River at Penrith (Bureau of Meteorology Station Number 567047) (b) establish a procedure for immediately evacuating all personnel and visitors on site when the water level at that station reaches the minor flood level, or a warning for minor flooding at Penrith is issued (c) update the Incident Response Plan covering the WHT13 site to include these procedures.	Flood Emergency Management Plan Incident Response Plan
E50	The Proponent must take all reasonable steps so as not to harm, modify or otherwise impact Aboriginal objects except as authorised by this approval.	ACHMP (CEMP Appendix H)

MCoA	Condition Requirements	Manner of compliance
E51	The Lavender Street toll gantry must be designed to be consistent with the most recently endorsed Sydney Harbour Bridge Conservation Management Plan. The design must be undertaken in consultation with relevant stakeholders including Heritage NSW.	Not Applicable
E52	Options for protecting and reusing salvaged heritage infrastructure from the former Woodleys Shipyard and BP Sites in the landscaping of Berrys Bay must be reviewed. The use of the items must be detailed in the Place, Design and Landscape Plan required by Condition E177.	NAHMP (CEMP Appendix G)
E55	The potential to retain or minimise impacts to the NSW Torpedo Corps slipway within Woodleys Shipyard in the landscaping of Berrys Bay must be reviewed during detailed design. If reasonably practicable, the slipway must be retained or impacts minimised.	Not Applicable
E56	Prior to potential physical impact, archival recording must be undertaken for the following heritage items: a) St Leonards Park (including W. Tunks Memorial Fountain, War Memorial, and North Sydney Oval), North Sydney; b) North Sydney Sewer Vent;	NAHMP (CEMP Appendix G)
E57	Archival recording must be undertaken by a suitably qualified heritage specialist and prepared in accordance with NSW Heritage Office's How to Prepare Archival Records of Heritage Items (1998) and Photographic Recording of Heritage Items Using Film or Digital Capture (2006). A copy must be provided to Heritage NSW and the relevant Council and submitted as part of the Final Excavation Report required by Condition E62.	NAHMP (CEMP Appendix G)
E58	Prior to the commencement of construction that has the potential to impact upon areas of archaeological significance as defined in the documents listed in Condition A1, a revised Archaeological Research Design and Excavation Methodology must be prepared in accordance with the Heritage Council of NSW guidelines and Heritage NSW comments on the EIS and RtS, to guide the archaeological program. The revised methodology must be prepared in consultation with Heritage NSW and submitted to the Planning Secretary for information.	NAHMP (CEMP Appendix G)
E59	Prior to commencement of archaeological excavation, the Proponent must nominate a suitably qualified Excavation Director who complies with Heritage NSW's Criteria for Assessment of Excavation Directors (September 2019) to oversee and advise on matters associated with historical archaeology. The Excavation Director must be present to oversee excavation, advise on archaeological issues, advise on the duration and extent of oversight required during archaeological excavations consistent with the approved Archaeological Research Design and Excavation Methodology required by Condition E58.	NAHMP (CEMP Appendix G)
E60	Following completion of archaeological excavation programs a Final Excavation Report must be prepared that includes: the details of any archival recording, further historical research undertaken to enhance the final reporting and results of archaeological excavations (including artefact analysis and identification of a final repository for finds). The report must be prepared in accordance with guidelines and standards required by Heritage NSW.	NAHMP (CEMP Appendix G)

MCoA	Condition Requirements	Manner of compliance
E61	An Artefact Conservation Management Plan (ACMP) must be prepared to support the archaeological excavation programs and be prepared with the support of a conservator. The ACMP must include historical and maritime relics recovered by the project. Artefact specialists must be engaged to analyse and report on the different assemblages as part of the final reporting for the CSSI. This must include details of analysis, processing and management of the collection including its curation needs in the short and long term. The Plan must be included in the Maritime Heritage and Non-Aboriginal Heritage Management CEMP Sub-plans, required by Condition C4.	NAHMP (CEMP Appendix G)
E62	The Final Excavation Report must be submitted to the Planning Secretary, Heritage NSW and the relevant Council for information no later than 12 months after the completion of the work referred to in Condition E60. It must include details of any significant artefacts recovered, where they are located and details of their ongoing conservation and protection in perpetuity. Copies of the Final Excavation Report must be provided to the Planning Secretary, Heritage NSW and to the relevant local Council's local studies unit.	NAHMP (CEMP Appendix G)
E63	An Unexpected Heritage Finds and Human Remains Procedure must be prepared to manage unexpected heritage finds (including maritime discoveries) in accordance with any guidelines and standards prepared by Heritage NSW and submitted to the Planning Secretary for information before the commencement of construction.	NAHMP (CEMP Appendix G) ACHMP (CEMP Appendix H)
E64	The Unexpected Heritage Finds and Human Remains Procedure, as submitted to the Planning Secretary, must be implemented for the duration of construction. Note: Human remains that are found unexpectedly during the carrying out of work may be under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.	NAHMP (CEMP Appendix G) ACHMP (CEMP Appendix H)
E65	A detailed land use survey must be undertaken to confirm sensitive land user(s) (including critical working areas such as operating theatres and precision laboratories) potentially exposed to construction noise and 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 before the commencement of work which generates construction or operational noise, vibration or ground-borne noise in that area. The results of the survey must be included in the Noise and Vibration CEMP Sub-plan required by Condition C4.	NVMP (CEMP Appendix D)
E66	Work must only be undertaken during the following hours: a) 7:00am to 6:00pm Mondays to Fridays, inclusive; b) 8:00am to 6:00pm Saturdays; and c) at no time on Sundays or public holidays.	Refer to Section 5.18.5 & NVMP (CEMP Appendix D)
E67	Except as permitted by an EPL, highly noise intensive works that result in an exceedance of the applicable NML at the same receiver must only be undertaken: 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	Refer to Section 5.18.5 & NVMP (CEMP Appendix D)

MCoA	Condition Requirements	Manner of compliance
	c) if continuously, then not exceeding three hours, with a minimum cessation of work of not less than one hour. For the purposes of this condition, 'continuously' includes any period during which there is less than one hour between ceasing and recommencing any of the work.	
E68	Notwithstanding Conditions E66 and E67 work may be undertaken outside the hours specified in any of the following circumstances: a) Safety and Emergencies, including: (i) for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or (ii) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm. On becoming aware of the need for emergency work in accordance with Condition E68(a)(ii), the Proponent must notify the AA, the ER, the Planning Secretary and the EPA of the reasons for such work. The Proponent must use best endeavours to notify all noise and/or vibration affected sensitive land user(s) of the likely impact and duration of those work. b) Low impact, including: (i) construction that causes LAeq(15 minute) noise levels: • no more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG, or • no more than the 'Noise affected' NMLs specified in Table 3 of the ICNG at other sensitive land user(s); o (ii) construction that causes LAFmax(15 minute) noise levels no more than 15 dB(A) above the rating background level at any residence; or (iii) construction that causes: • continuous or impulsive vibration values, measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), or • intermittent vibration values measured at the most affected residence are no more than the preferred values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006). c) By Approval, including: (i) where different construction hours are permitted or required under an EPL in force in respect of the CSSI; or (ii) works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition E69; or	NVMP (CEMP Appendix D)

MCoA	Condition Requirements	Manner of compliance
	(iii) negotiated agreements with directly affected residents and sensitive land user(s). d) By Prescribed Activity, including: (i) tunnelling (excluding cut and cover tunnelling and surface works) and tunnel fit out works (excluding surface works) are permitted 24 hours a day, seven days a week; or (ii) delivery of material that is required to occur outside of standard construction hours in Condition E66 to directly support tunnelling activities; or (iii) spoil haulage activities from the Rozelle Rail Yards construction support site (WHT12) onto the City West Link; or (iv) along the Warringah Freeway corridor in accordance with Condition E88.	
E69	An Out-of-Hours Work Protocol must be prepared to identify a process for the consideration, management and approval of work which is outside the hours defined in Conditions E66, and that are not subject to an EPL. The Protocol must be approved by the Planning Secretary before commencement of the Out-of-Hours Work. The Protocol must be prepared in consultation with the ER, AA and EPA. The Protocol must provide: a) identification of low and high-risk activities and an approval process that considers the risk of activities, proposed mitigation, management, and coordination, including where: i) the ER and AA review all proposed out-of-hours activities and confirm their risk levels, ii) low risk activities can be approved by the ER in consultation with the AA, and iii) high risk activities that are approved by the Planning Secretary; b) a process for the consideration of out-of-hours work against the relevant NML and vibration criteria; c) a process for selecting and implementing mitigation measures for residual impacts in consultation with the community at each affected location, including respite periods consistent with the requirements of Condition E83. The measures must take into account the predicted noise levels and the likely frequency and duration of the out-of-hours works that sensitive land user(s) would be exposed to, including the number of noise awakening events; d) procedures to facilitate the coordination of out-of-hours work including those approved by an EPL or undertaken by a third party, to ensure appropriate respite is provided; and e) notification arrangements for affected receivers for all approved out-of-hours works and notification to the Planning Secretary of approved low risk out-of-hours works. This condition does not apply if the requirements of Condition E68(b) are met.	NVMP (CEMP Appendix D)
E70	Mitigation measures must be implemented with the aim of achieving the following construction noise management levels and vibration objectives: a) construction ‘Noise affected’ NML established using the Interim Construction Noise Guideline (DECC, 2009);	NVMP (CEMP Appendix D)

MCoA	Condition Requirements	Manner of compliance
	b) vibration criteria established using the Assessing vibration: a technical guideline (DEC, 2006) (for human exposure); c) Australian Standard AS 2187.2 - 2006 “Explosives - Storage and Use - Use of Explosives”; d) BS 7385 Part 2-1993 “Evaluation and measurement for vibration in buildings Part 2” as they are “applicable to Australian conditions”; e) the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration- effects of vibration on structures (for structural damage); and f) the project noise trigger levels as determined in accordance with the Noise Policy for Industry (EPA, 2017), for the operation of the Emu Plains construction ancillary facility (WHT13). Any work identified as exceeding the noise management levels and/or vibration criteria must be managed in accordance with the Noise and Vibration CEMP Sub-plan. Note: The ICNG identifies ‘particularly annoying’ activities that require the addition of 5 dB(A) to the predicted level before comparing to the construction NML.	
E71	Mitigation measures must be applied when the following residential ground-borne noise levels are exceeded: a) evening (6:00 pm to 10:00 pm) — internal LAeq(15 minute): 40 dB(A); and b) night (10:00 pm to 7:00 am) — internal LAeq(15 minute): 35 dB(A). The mitigation measures must be outlined in the Noise and Vibration CEMP Sub-plan, including in any Out-of-Hours Work Protocol, required by Condition E69.	NVMP (CEMP Appendix D)
E72	Noise generating work in the vicinity of potentially-affected community, religious, educational institutions, noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) resulting in noise levels above the NMLs must not be timetabled within sensitive periods, unless other reasonable arrangements with the affected institutions are made at no cost to the affected institution.	NVMP (CEMP Appendix D)
E73	At no time can noise generated by construction exceed the National Standard for exposure to noise in the occupational environment of an eight-hour (8hr) equivalent continuous A-weighted sound pressure level of LAeq,8h of 85 dB(A) for any employee working at a location near the CSSI.	NVMP (CEMP Appendix D)
E74	Industry best practice construction methods must be implemented where reasonably practicable to ensure that noise levels are minimised. Practices must include, but are not limited to: a) use of regularly serviced low sound power equipment; b) early occupation and later release of road carriageways and construction sites; c) scheduling of noisiest works before 11.00 pm Sunday to Thursday and before 12 midnight Friday and Saturday; d) temporary noise barriers (including the arrangement of plant and equipment) around noisy equipment and activities such as rockhammering and concrete cutting; and	NVMP (CEMP Appendix D)

MCoA	Condition Requirements	Manner of compliance
	e) use of alternative construction and demolition techniques.	
E74A	The use of rock breakers/hammers for the construction of the launch chamber at Birchgrove and receival chamber at Waverton is restricted to 7:00 am to 6:00 pm, Monday to Saturday, unless the works: (a) do not exceed the NML at sensitive receivers; or (b) are otherwise permitted through an Environment Protection Licence.	NVMP (CEMP Appendix D)
E75	Construction Noise and Vibration Impact Statements (CNVIS) must be prepared for any work that may exceed the noise management levels, vibration criteria and/or ground-borne noise levels specified in Condition E70 and Condition E71 at any residence outside construction hours identified in Condition E66, or where receivers will be highly noise affected. The CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the works. A copy of the CNVIS must be provided to the AA and ER prior to the commencement of the associated works. The Planning Secretary may request a copy/ies of CNVIS.	NVMP (CEMP Appendix D)
E76	Owners and occupiers of properties at risk of exceeding the screening criteria for cosmetic damage must be notified before work that generates vibration commences in the vicinity of those properties. If the potential exceedance is to occur more than once or extend over a period of 24 hours, owners and occupiers are to be provided a schedule of potential exceedances on a monthly basis for the duration of the potential exceedances, unless otherwise agreed by the owner and occupier. These properties must be identified and considered in the Noise and Vibration CEMP Sub-plan required by Condition C4 and the Community Communication Strategy required by Condition B1.	NVMP (CEMP Appendix D)
E77	All surface-based tunnelling support activities that generate noise levels above the noise management levels in Condition E70 must occur within an acoustic shed (or cut and cover structures where there is no exceedances of the NMLs).	NVMP (CEMP Appendix D)
E78	All acoustic sheds and excavation covers (i.e. cut and cover roof) must be designed and used so that activities carried out within them do not result in the exceedance of the NMLs.	NVMP (CEMP Appendix D)
E79	The Proponent must conduct vibration testing during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and attended 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 mitigation measures.	NVMP (CEMP Appendix D) & NAHMP (Appendix G)
E80	Advice from a heritage specialist must be sought on methods and locations for installing equipment used for vibration, movement and noise monitoring at heritage-listed structures.	NVMP (CEMP Appendix D) & NAHMP (Appendix G)

MCoA	Condition Requirements	Manner of compliance
E81	Before conducting at-property treatment at any heritage item identified in the documents listed in Condition A1, the advice of a suitably qualified and experienced built heritage expert must be obtained and implemented to ensure any such work does not have an adverse impact on the heritage significance of the item.	NVMP (CEMP Appendix D) & NAHMP (Appendix G)
E82	All work undertaken for the delivery of the CSSI, including those undertaken by third parties (such as utility relocations), must be coordinated to ensure respite periods are provided. The Proponent must: a) reschedule any work to provide respite to impacted noise sensitive land user(s) so that the respite is achieved in accordance with Condition E83; or b) consider the provision of alternative respite or mitigation to impacted noise sensitive land user(s); and c) provide documentary evidence to the AA in support of any decision made by the Proponent in relation to respite or mitigation. The consideration of respite must also include all other CSSI, SSI and SSD projects which may cause cumulative and/or consecutive impacts at receivers affected by the delivery of the CSSI.	NVMP (CEMP Appendix D)
E83	In order to undertake out-of-hours work outside the hours specified under Condition E66, the Proponent must identify appropriate respite periods for the out-of-hours work in consultation with the community at each affected location on a regular basis. This consultation must include (but not be limited to) providing the community with: a) a progressive schedule for periods no less than three months, of likely out-of-hours work; b) a description of the potential work, location and duration of the out-of-hours work; c) the noise characteristics and likely noise levels of the work; and d) likely mitigation and management measures which aim to achieve the relevant noise management levels under Condition E70 (including the circumstances of when respite or relocation offers will be available and details about how the affected community can access these offers). The outcomes of the community consultation, the identified respite periods and the scheduling of the likely out-of-hour work must be provided to the AA, ER, EPA and the Planning Secretary. Note: Respite periods can be any combination of days or hours where out-of-hours work would not be more than 5 dB(A) above the rating background noise level at any residence.	NVMP (CEMP Appendix D)
E84	The Proponent must implement the Noise Insulation Program (NIP) developed for the Warringah Freeway Upgrade works. Should the NIP be progressively updated, the updated version must be provided to the Planning Secretary for information. Note: the implementation of temporary or permanent noise mitigation measures in accordance with NIP is considered as low impact work as defined in the definitions table Low Impact Work (d).	NVMP (CEMP Appendix D)

MCoA	Condition Requirements	Manner of compliance
E85	Landowners whose residential properties are eligible to receive at-property treatment in accordance with the NIP must be advised of the range of options that can be installed at or in their property and given a choice as to which of these they agree to have installed. A copy of all guidelines and procedures that will be used to determine at-property treatment at their residence must be provided to the landowner.	NVMP (CEMP Appendix D)
E86	The offer for at-property treatment or the application of other noise and vibration mitigation measures does not expire until the out-of-hours work affecting that property are completed, even if the landowner initially refuses the offer.	NVMP (CEMP Appendix D)
E87	The implementation of at-property treatment does not preclude the application of other noise and vibration mitigation and management measures including temporary and long term accommodation.	NVMP (CEMP Appendix D)
E88	Out-of-Hours Work along the Warringah Freeway corridor which results in an exceedance of the relevant NML at the same sensitive land user(s) may be undertaken in accordance with the following criteria: a) two consecutive evenings and/or nights per week; or b) three non-consecutive evenings and/or nights per week; or c) 10 evenings and/or nights per month; or d) except as identified by an EPL; or e) in accordance with an agreement with a potentially impacted receiver(s) as required by Condition E68(c)(iii) or Condition E83. Note: These parameters may be increased subject to the development of a framework, which is prepared in consultation with the community and EPA and with consideration of the delivery of the NIP.	NVMP (CEMP Appendix D)
E88A	The landowners of 17 and 19 Railway Street, Emu Plains must be advised that their residences are eligible for at-property noise treatments. The advice must be provided within one month of the commencement of Work at the Emu Plains ancillary facility, unless an alternative timeframe is agreed to by the Planning Secretary.	NVMP (CEMP Appendix D)
E88B	The noise treatment types to be provided must be developed in consultation with and agreed to by the affected landowners. The landowners must be advised of the range of options that can be installed at their property and be given a choice of mitigation to be installed. A copy of all guidelines and procedures that will be used to determine the type of noise treatment must be provided to the landowner.	NVMP (CEMP Appendix D)
E88C	Where a landowner accepts the offer for at-property noise treatment, the measures must be implemented prior to the commencement of concrete casting at the Emu Plains ancillary facility (WHT13), unless an alternative timeframe is agreed to by the landowner.	NVMP (CEMP Appendix D)
E88D	The offer for at-property treatment expires 18 months after concrete casting at the Emu Plains ancillary facility (WHT13) has commenced.	NVMP (CEMP Appendix D)

MCoA	Condition Requirements	Manner of compliance
E89	The Proponent must prepare an Operational Noise Review (ONR) to confirm noise control measures that would be implemented for the operation of the CSSI. The ONR must be prepared in consultation with the Planning Secretary, relevant council(s), and the EPA and must: a) confirm the appropriate operational noise objectives and levels for surrounding development, including existing sensitive land user(s); b) confirm the operational noise predictions based on the final design. Confirmation must be based on an appropriately calibrated noise model (which has incorporated noise monitoring, and concurrent traffic counting, where necessary for calibration purposes). The assessment must specifically include verification of noise levels at all fixed facilities, based on noise monitoring undertaken at appropriately identified noise catchment areas surrounding the facilities; c) confirm the operational noise impacts at adjoining development based on the final design of the CSSI, including operational daytime LAeq,15 hour and night-time LAeq, 9-hour traffic noise contours; d) review the suitability of the operational noise mitigation measures identified in the documents listed in Condition A1 and, where necessary, investigate and identify additional noise and vibration mitigation measures required to achieve the noise criteria outlined in the NSW Road Noise Policy (DECCW, 2011) and NSW Noise Policy for Industry (EPA, 2017) as relevant, including the timing of implementation; e) include a consultation strategy to seek feedback from directly affected landowners on the noise and vibration mitigation measures; and f) procedures for the management of operational noise and vibration complaints. The ONR must be verified by an independent acoustic expert. The ONR must be undertaken at the Proponent's expense and submitted to the Planning Secretary within 12 months of the commencement of construction unless otherwise agreed by the Planning Secretary. The Proponent must implement the identified noise and vibration control measures and make the ONR publicly available. Note: The design of noise barriers and the like must be undertaken in consultation with the community as part of the Place Design and Landscape Plan required under Condition E177.	NVMP (CEMP Appendix D)
E90	Operational noise mitigation measures as identified in Condition E89 that will not be physically affected by work, must be implemented within six months of submitting the ONR, unless otherwise agreed by the Planning Secretary. Where implementation of operational noise mitigation measures are not proposed to be implemented in accordance with this requirement, the Proponent must submit to the Planning Secretary a report providing justification as to why, along with details of temporary measures that would be implemented to reduce construction noise impacts, until such time that the operational noise mitigation measures are implemented. The report must be endorsed by the AA and submitted to the Planning Secretary within six months of submitting the ONR.	NVMP (CEMP Appendix D)

MCoA	Condition Requirements	Manner of compliance
	Note: Not having finalised detailed design is not sufficient justification for not implementing the proposed mitigation measures.	
E91	In the absence of an ONR required under Condition E89, the following can be undertaken: a) provision of at-property noise mitigation measures required in the NIP under Condition E84; and b) construction of the Massey to Amherst Street, Cammeray noise barrier / wall as identified in Appendix C. Note: Notwithstanding the provision of this condition, should the ONR identify the need for further mitigation the Proponent may be required to amend the design of already installed noise mitigation measures.	These works do not form part of the ACCIONA scope of works.
E92	Within 12 months of the commencement of operation of the CSSI, the Proponent must undertake monitoring of operational noise to compare actual noise performance of the CSSI against the noise performance predicted in the review of noise mitigation measures required by Condition E89.	Not applicable
E93	An Operational Noise Compliance Report (ONCR) must be prepared to document the findings of the operational noise monitoring carried out under Condition E92. The ONCR must be prepared in accordance with the Model Validation Guideline (RMS, 16 May 2018 Version 1.1) and must address the following: a) compliance with the operational noise levels predicted in the review of operational noise mitigation measures required under Condition E89; b) compliance with the operational noise levels in terms of criteria and noise goals established in the NSW Road Noise Policy (DECCW, 2011) and NSW Noise Policy for Industry (EPA, 2017); c) methodology, location and frequency of noise monitoring undertaken, including monitoring sites at which CSSI noise levels are ascertained, with specific reference to locations indicative of impacts on receivers; d) pavement corrections for light and heavy vehicles and an assessment of the acoustic performance of different pavement types over their design life; e) details of any complaints and enquiries received in relation to operational noise generated by the CSSI between the date of commencement of operation and the date the report was prepared; f) any required recalibrations of the noise model taking into consideration factors such as noise monitoring and actual traffic numbers and proportions; g) an assessment of the performance and effectiveness of applied noise mitigation measures together with a review and if necessary, reassessment of mitigation measures; and h) identification of additional measures to those identified in the review of noise mitigation measures required by Condition E89, that are to be implemented with the objective of meeting the criteria outlined in the NSW Road Noise Policy (DECCW, 2011) and NSW Noise Policy for Industry (EPA, 2017), when these measures are to be implemented and how their effectiveness is to be measured and reported to the Planning Secretary and the EPA.	Not applicable

MCoA	Condition Requirements	Manner of compliance
	The Operational Noise Compliance Report must be submitted to the Planning Secretary and the EPA within 60 days of completing the operational noise monitoring and made publicly available.	
E94	Low noise road pavements must be maintained to ensure that they continue to contribute to the compliance of mitigated noise levels identified in the ONR (Condition E89) throughout the life of the project.	Section 5.5
E95	Blasting associated with the CSSI must only be undertaken during the following hours: a) 9:00am to 5:00pm, Monday to Friday, inclusive; b) 9:00am to 1:00pm on Saturday; and c) at no time on Sunday or public holidays; or d) as authorised through an EPL. This condition does not apply in the event of a direction from the NSW Police Force or other relevant authority for safety or emergency reasons to avoid loss of life, property loss and/or to prevent environmental harm.	NVMP (CEMP Appendix D)
E96	A Blast Management Strategy must be prepared and must include: a) sequencing and review of trial blasting to inform blasting; b) regularity of blasting; c) intensity of blasting; d) periods of relief; and e) blasting program.	NVMP (CEMP Appendix D)
E97	The Blast Management Strategy must be endorsed by a suitably qualified and experienced person.	NVMP (CEMP Appendix D)
E98	The Blast Management Strategy must be prepared in accordance with relevant guidelines and in consultation with the EPA, in order to ensure that all blasting and associated activities are carried out so as not to generate unacceptable noise and vibration impacts or pose a significant risk to sensitive land user(s).	NVMP (CEMP Appendix D)
E99	The Blast Management Strategy must be submitted to the Planning Secretary for information no later than one month before the commencement of blasting. The Strategy as submitted to the Planning Secretary, must be implemented for all blasting activities.	NVMP (CEMP Appendix D)
E100	The Proponent must identify the utilities and services (hereafter “services”) potentially affected by construction to determine requirements for diversion, protection and/or support. Alterations to services must be determined by negotiation between the Proponent and the service providers. The Proponent in consultation with service providers must ensure that disruption to services resulting from the Activity are avoided where practical and advised to customers.	Section 5.22

<table>
<tr><th>MCoA</th><th>Condition Requirements</th><th>Manner of compliance</th></tr>
<tr><td>E101</td><td>The design and establishment of an altered Cammeray Golf Course must provide an equivalent standard golf course or the provision of works to offset the loss in standards. This must be undertaken in consultation with and at no cost to Cammeray Golf Club.</td><td>These works do not form part of the ACCIONA scope of works.</td></tr>
<tr><td>E102</td><td>A geotechnical model of representative geological and groundwater conditions must be prepared prior to excavation (that may pose a settlement risk) and tunnelling to identify geological structures and groundwater features. The model must include details of proposed excavations and tunnels, construction staging, and identify surface and sub-surface structures, including any specific attributes, which may be impacted by the CSSI. The Proponent must use this model to assess the cumulative predicted settlement, ground movement, stress redistribution and horizontal strain profiles caused by excavation and tunnelling, including groundwater drawdown and associated impacts, on adjacent surface and sub-surface structures.</td><td>GWMP (CEMP Appendix F)</td></tr>
<tr><td>E103</td><td>The Proponent must undertake a review of surface and sub-surface structures at risk from damage to determine appropriate criteria to prevent damage, prior to excavation and tunnelling works that may pose a settlement risk. Criteria for surface and sub-surface structures which are not included in Condition E104 (Table 9) must be determined in consultation with the owner(s) of the surface and sub-surface structures prior to commencement of any excavation or tunnelling works potentially affecting the surface and sub-surface structures.</td><td>GWMP (CEMP Appendix F)</td></tr>
<tr><td>E104</td><td>In the case of buildings, roads, parking areas and parks, the appropriate criteria which govern the greatest risk of damage are to be selected from Table 9 unless the Proponent has determined more stringent criteria as a result of Condition E103.
Table 9:Settlement Criteria
<table>
<tr><th>Surface and Sub-Surface Structures</th><th>Maximum Settlement</th><th>Maximum Angular Distortion</th><th>Limiting Tensile Strain (percent)*</th></tr>
<tr><td>Buildings – Low or non-sensitive properties (i.e. ≤ 2 levels and carparks)</td><td>30 mm</td><td>1 in 350</td><td>0.1</td></tr>
<tr><td>Buildings and pools – High or sensitive properties (i.e. ≥ 3 levels and heritage items)</td><td>20 mm</td><td>1 in 500</td><td>0.1</td></tr>
<tr><td>Roads and parking areas</td><td>40 mm</td><td>1 in 250</td><td>n/a</td></tr>
<tr><td>Parks</td><td>50 mm</td><td>1 in 250</td><td>n/a</td></tr>
</table>
Note: * As defined in Burland et al. 'Building response to tunnelling – Case studies from construction of the Jubilee Link Extension', London, Thomas Telford (2001)</td><td>GWMP (CEMP Appendix F)</td></tr>
<tr><td>E105</td><td>Should the geotechnical model in Condition E102 identify exceedances of the relevant criteria established by Conditions E103 and E104, the Proponent must implement an instrumentation and monitoring program to measure settlement, distortion or strain as required. The Proponent must also identify and implement appropriate mitigation measures in consultation with the owner(s) of the relevant surface and sub-surface structures prior to excavation and tunnelling works to ensure where possible that the surface and sub-surface structures will not experience exceedances of the relevant criteria.</td><td>GWMP (CEMP Appendix F)</td></tr>
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MCoA	Condition Requirements	Manner of compliance
	The adopted criteria do not remove any responsibility from the Proponent for the protection of existing surface and sub-surface structures or for rectifying any damage to surface and subsurface structures resulting from the CSSI.	
E106	Where monitoring indicates groundwater drawdown or settlement is substantially different to predictions or in excess of the limits specified in this approval, the requirements of Conditions E102 to E105 inclusive must be undertaken again within three months. Model input parameters must be adjusted to calibrate the model so that predictions are better aligned with actual observations	GWMP (CEMP Appendix F)
E107	The Proponent must offer pre-construction surveys and must undertake and prepare Preconstruction Condition Survey Reports where the offer is accepted, on the current condition of surface and sub-surface structures identified as at risk from settlement or vibration by the geotechnical model described in Condition E102 and the CNVIS required by Condition E75 or as directed by the Independent Property Impact Assessment Panel (IPIAP) established under Condition E111. The Pre-construction Condition Survey Reports must be prepared by a suitably qualified and experienced person(s) and must be provided to the owners of the surface and sub-surface structures for review prior to the commencement of potentially impacting works.	NVMP (CEMP Appendix D) & GWMP (CEMP Appendix F)
E108	Where pre-construction surveys have been undertaken in accordance with Condition E107, subsequent post-construction surveys must be undertaken to assess damage to the surface and sub-surface structures that may have resulted from construction within three months of landowner(s) requests.	NVMP (CEMP Appendix D) & GWMP (CEMP Appendix F)
E109	The results of the post-construction surveys undertaken under Condition E108 must be documented in Post-construction Condition Survey Reports for each surface and sub-surface structure surveyed. The Post-construction Condition Survey Reports must be prepared by a suitably qualified and experienced person(s). Copies of the Post-construction Condition Survey Reports must be provided to the owner(s) of the structures surveyed no later than four months following the completion of construction activities that have the potential to impact on the subject surface / subsurface structure.	NVMP (CEMP Appendix D) & GWMP (CEMP Appendix F)
E110	Where damage has been determined to occur as a result of the project, the Proponent must carry out rectification at its expense and to the reasonable requirements of the surface and sub-surface structure owner(s) within 12 months of completion of construction unless another timeframe is agreed with the owner of the affected surface or sub-surface structure.	NVMP (CEMP Appendix D) & GWMP (CEMP Appendix F)
E111	The Proponent must establish an IPIAP before works that have the potential to result in property impacts commence. The IPIAP must comprise geotechnical and engineering experts independent of the design and construction team. The IPIAP will be responsible for independently reviewing Pre- and Post-construction Condition Survey Report templates prepared under Conditions E107 and E109, any Pre- and Post-construction Condition Survey Reports where there is a dispute, and the resolution of property damage disputes, and the establishment of ongoing settlement and vibration monitoring requirements. The Planning Secretary must be notified of the members of the IPIAP prior to the commencement of any works which may potentially result in property impacts.	NVMP (CEMP Appendix D) & GWMP (CEMP Appendix F)
E112	Either the affected owner or the Proponent may refer unresolved disputes arising from potential and/or actual property impacts to the IPIAP for resolution. All costs incurred in establishing and implementing the IPIAP must be	NVMP (CEMP Appendix D) & GWMP (CEMP Appendix F)

MCoA	Condition Requirements	Manner of compliance
	borne by the Proponent regardless of which party makes a referral to the IPIAP. The findings and recommendations of the IPIAP are final and binding on the Proponent.	
E113	The governance framework for the IPIAP must be made publicly available on the CSSI's project page as required by Condition B15.	NVMP (CEMP Appendix D) & GWMP (CEMP Appendix F)
E114	Prior to the commencement of any work, erosion and sediment controls must be installed and maintained, as a minimum, in accordance with the publication Managing Urban Stormwater: Soils & Construction (4th edition, Landcom 2004) commonly referred to as the 'Blue Book'.	SSWMP (CEMP Appendix E)
E115	Prior to the commencement of any work that would result in the disturbance of moderate to high risk contaminated sites as identified in the documented listed in Condition A1, a Detailed Site Investigations must be undertaken by a Contaminated Land Consultant certified under either the Environment Institute of Australia or New Zealand's "Certified Environmental Practitioner" (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia "Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme.	SSWMP (CEMP Appendix E)
E116	A Detailed Site Investigation Report must be prepared and submitted to the Planning Secretary for information following the completion of Detailed Site Investigations required by Condition E115. The report must be prepared in accordance with relevant guidelines made or approved by the EPA under section 105 of the Contaminated Land Management Act 1997 (NSW) and prepared by a Contaminated Land Consultant certified under either the Environment Institute of Australia or New Zealand's "Certified Environmental Practitioner" (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia "Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme. Nothing in this condition prevents the Proponent from preparing individual Site Contamination Reports for separate sites.	SSWMP (CEMP Appendix E)
E117	The Detailed Site Investigation Report must provide details on: a) primary sources of contamination, for example potentially contaminating activities, infrastructure (such as underground storage tanks, fuel line, sumps or sewer lines) or site practices; b) contaminant dispersal in air, hazardous ground gases, surface water, groundwater, soil vapour, separate phase contaminants, infrastructure (e.g. concrete), biota, soil and dust; c) contaminant characterisation and behaviour (volatility, leachability, speciation, degradation products and physical and chemical conditions on-site which may affect how contaminants behave); d) potential effects of contaminants on human health, including the health of occupants of built structures (for example arising from risks to service lines from hydrocarbons in groundwater, or risks to concrete from acid sulphate soils) and the environment; e) potential and actual contaminant migration routes including potential preferential pathways; f) the adequacy and completeness of all information available for use in the assessment of risk and for making decisions on management requirements, including an assessment of uncertainty;	SSWMP (CEMP Appendix E)

MCoA	Condition Requirements	Manner of compliance
	g) the review and update of the conceptual site model from the preliminary and detailed site investigations; h) nature and extent of any existing remediation (such as impervious surface cappings); and/or; i) whether the land is suitable (for the intended final land use) or can be made suitable through remediation.	
E117A	Disturbance to the existing landfill through the site establishment and operation of the proposed Wicks Road Construction Support Site (Mod 1), as described in Condition A1, is prohibited unless a site auditor agrees to any disturbance.	Not applicable to Stage 3B or 3C of the project.
E118	Should remediation be required to make land suitable for the final intended land use, a Remediation Action Plan must be prepared or reviewed and approved, by consultants certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme. The Remedial Action Plan must be prepared in accordance with relevant guidelines made or approved by the EPA under section 105 of the Contaminated Land Management Act 1997 and must include measures to remediate the contamination at the site to ensure the site will be suitable for the proposed use when the Remedial Action Plan is implemented. The Remedial Action Plan must be submitted to the Planning Secretary for information prior to undertaking remediation.	SSWMP (CEMP Appendix E)
E119	The Remediation Action Plan must include measures to remediate the contamination at the site to ensure the site will be suitable for the proposed use and detail how the environmental and human health risks will be managed during the disturbance, remediation and/or removal of contaminated soil or groundwater. Nothing in this condition prevents the preparation of individual Remediation Action Plans for separate sites.	SSWMP (CEMP Appendix E)
E120	Prior to commencing remediation, a Section B Site Audit Statement(s) must be prepared by a NSW EPA-accredited Site Auditor that certifies that the Remediation Action Plan is appropriate and that the site can be made suitable for the proposed use. The Remedial Action Plan must be implemented and any changes to the Remedial Action Plan must be approved in writing by the NSW EPA accredited Site Auditor. Nothing in this condition prevents the Proponent from engaging the Site Auditor to prepare Site Audit Statements for separate sites.	SSWMP (CEMP Appendix E)
E121	A Section A1 or A2 Site Audit Statement (accompanied by an Environmental Management Plan) and its accompanying Site Audit Report, which state that the contaminated land disturbed by the work has been made suitable for the intended land use, must be submitted to the Planning Secretary and Council prior to the commencement of operation of the CSSI. Nothing in this condition prevents the Proponent from obtaining Section A Site Audit Statements for individual parcels of remediated land.	SSWMP (CEMP Appendix E)

MCoA	Condition Requirements	Manner of compliance
E122	Contaminated land must not be used for the purpose approved under the terms of this approval until a Section A1 or A2 Site Audit Statement is obtained which states that the land is suitable for that purpose and any conditions on the Section A Site Audit Statement have been complied with.	SSWMP (CEMP Appendix E)
E123	An Unexpected Finds Procedure for Contamination must be prepared before the commencement of work and must be followed should unexpected contamination or asbestos (or suspected contamination) be excavated or otherwise discovered. The procedure must include details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved. The procedure must be submitted to the Planning Secretary for information.	SSWMP (CEMP Appendix E)
E124	The Unexpected Finds Procedure for Contamination must be implemented throughout construction.	SSWMP (CEMP Appendix E)
E125	A Sustainability Strategy must be prepared to achieve a minimum “Excellent” ‘Design’ and ‘As built’ rating under the Infrastructure Sustainability Council of Australia infrastructure rating tool.	Sustainability Management Plan
E126	The Sustainability Strategy must be submitted to the Planning Secretary for information before the commencement of construction and must be implemented throughout construction and operation.	Sustainability Management Plan
E127	A Water Reuse Strategy must be prepared, which sets out options for the reuse of collected stormwater and groundwater during construction and operation. The Water Reuse Strategy must include, but not be limited to: a) evaluation of reuse options; b) details of the preferred reuse option(s), including volumes of water to be reused, proposed reuse locations and/or activities, proposed treatment (if required), and any additional licences or approvals that may be required; c) measures to avoid misuse of recycled water as potable water; d) consideration of the public health risks from water recycling; and e) a time frame for the implementation of the preferred reuse option(s). The Water Reuse Strategy must be prepared based on best practice and advice sought from relevant agencies, as required. The Strategy must be applied during construction and operation. Justification must be provided to the Planning Secretary if it is concluded that no reuse options prevail. A copy of the Water Reuse Strategy must be made publicly available. Note: Nothing in this condition prevents the Proponent from preparing separate Water Reuse Strategies for the construction and operational phases of the CSSI.	Water Reuse Strategy
E128	Access to all utilities and properties must be maintained during construction, where practicable, unless otherwise agreed with the relevant utility owner, landowner or occupier.	TTAMP (CEMP Appendix B)
E129	Any property access physically affected by the CSSI must be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or occupier.	TTAMP (CEMP Appendix B)

MCoA	Condition Requirements	Manner of compliance
E130	Access to the ancillary facility WHT3 construction support site at White Bay by construction vehicles (including light vehicles) must only be via The Crescent/City West Link and James Craig Road. No vehicle associated with the CSSI is permitted to access the site via Robert Street, Rozelle, unless required in the event of an emergency.	TTAMP (CEMP Appendix B)
E132	Local roads proposed to be used by heavy vehicles to directly access the construction boundary and ancillary facilities that are not shown in Figure 5-7 to 5-22 inclusive of Appendix F of the EIS, Figure 7-1 of the Modification 1 Report, as described in Condition A1, and in Figure 9.2 of Modification 2 must be approved by the Planning Secretary and included in the Traffic, Transport and Access Management CEMP Sub-plan.	TTAMP (CEMP Appendix B)
E133	All requests to the Planning Secretary under Condition E132 must include the following: a) a swept path analysis; b) demonstration that the use of local roads by heavy vehicles for the CSSI will not compromise the safety of pedestrians and cyclists or the safety of two-way traffic flow on two-way roadways; c) provide details as to the date of completion of the road dilapidation surveys for the subject local roads; d) measures that will be implemented to avoid where practicable the use of roads past schools, aged care facilities and child care facilities during their peak operation times; and e) written advice from an appropriately qualified professional on the suitability of the proposed heavy vehicle route which takes into consideration items (a), (b), (c), and (d) of this condition.	TTAMP (CEMP Appendix B)
E135	The locations of all heavy vehicles used for spoil haulage must be monitored in real time and the records of monitoring be made available electronically to the Planning Secretary and the EPA upon request for a period of no less than one year following the completion of construction. Note: Refer to Condition A47 in relation to vehicle identification.	TTAMP (CEMP Appendix B)
E135A	The number of spoil haulage trucks and concrete trucks exiting from the Ridge Street construction ancillary facility (WHT 9) between the hours of 10:00 pm and 7:00 am, Monday to Sunday and travelling westbound along Falcon Street, is limited to a total of 100 vehicles per night unless an alternative number of vehicle movements is permitted through an Environment Protection Licence. Measures must be put in place to monitor the number of spoil and concrete trucks making this movement. Details on the number of movements must be provided to the EPA and the Planning Secretary on request, within one week of the EPA and the Planning Secretary making the request.	TTAMP (CEMP Appendix B)
E136	Before any local road is used by a heavy vehicle for the purposes of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the relevant council within three weeks of completion of the survey and no later than one month prior to the road being used by heavy vehicles associated with the CSSI.	TTAMP (CEMP Appendix B)
E137	If damage to roads occurs as a result of the CSSI, the Proponent must either (at the relevant road authority's discretion):	TTAMP (CEMP Appendix B)

MCoA	Condition Requirements	Manner of compliance
	a) compensate the relevant road authority for the damage so caused; or b) rectify the damage to restore the road to at least the condition it was in pre-works as identified in the Road Dilapidation Report(s).	
E138	Safe pedestrian and cyclist access must be maintained around work sites during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, a proximate alternative route which complies with relevant standards, unless otherwise endorsed by an independent, appropriately qualified and experienced person, must be provided (including signposting) prior to the restriction or removal of the impacted access.	TTAMP (CEMP Appendix B)
E139	Vehicles (including light and heavy vehicles) associated with the CSSI must be managed to: a) minimise parking on public roads; b) minimise idling and queueing on state and regional roads; c) not carry out marshalling of construction vehicles near sensitive land user(s); d) not block or disrupt access across pedestrian or shared user paths at any time; and e) ensure spoil haulage vehicles adhere to the nominated haulage routes identified in the Traffic, Transport and Access Management CEMP Sub-plan.	TTAMP (CEMP Appendix B)
E140	A Construction Parking and Access Strategy must be prepared to identify and mitigate impacts resulting from on- and off-street parking changes during construction of the CSSI. The Strategy must include, but not necessarily be limited to: a) achieving the requirements of Condition E139; b) confirmation and timing of the removal of on- and off-street parking associated with construction of the CSSI; c) parking surveys of all parking spaces to be removed or occupied by the CSSI workforce to determine current demand during peak, off-peak, school drop off and pickup, weekend periods and during special events; d) consultation with affected stakeholders utilising existing on- and off-street parking stock which will be impacted as a result of construction; e) assessment of the impacts to on- and off-street parking stock taking into consideration, occupation by the CSSI workforce, outcomes of consultation with affected stakeholders and considering the impacts of special events; f) identification of mitigation measures to manage impacts to stakeholders as a result of on and off-street parking changes including, but not necessarily limited to, staged removal and replacement of parking, provision of alternative parking arrangements, managed staff parking arrangements and working with relevant council(s) to introduce parking restrictions adjacent to work sites and compounds or appropriate residential parking schemes;	TTAMP (CEMP Appendix B)

MCoA	Condition Requirements	Manner of compliance
	g) where residential parking schemes already exist, off-road parking facilities must be provided for the CSSI workforce; h) mechanisms for monitoring, over appropriate intervals, to determine the effectiveness of implemented mitigation measures; i) details of shuttle bus service(s) to transport the CSSI workforce to construction sites from public transport hubs and off-site car parking facilities (where these are provided) and between construction sites; j) provision of contingency measures should the results of mitigation or monitoring indicate implemented measures are ineffective; and k) provision of reporting of monitoring results to the Planning Secretary and relevant council(s) at three monthly intervals. The Construction Parking and Access Strategy must be submitted to the Planning Secretary for approval at least one month before the commencement of any construction that reduces the availability of existing parking. The approved Strategy must be implemented before impacting on on-street parking and incorporated into the Traffic, Transport and Access Management CEMP Sub-plan.	
E141	During construction, all reasonably practicable measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements must be developed in consultation with affected businesses and implemented prior to the disruption. Adequate signage and directions to businesses must be provided prior to, and for the duration of, any disruption.	TTAMP (CEMP Appendix B)
E142	The Proponent must mitigate the loss of on-street parking in Alfred Street North (specifically between Wyagdon Street and Whaling Road), Neutral Bay during construction and operation of the CSSI, with the objective of having no impact to resident parking during operation, by: a) confirming existing capacity and the parking requirements of the residents by survey; b) investigating options to mitigate the loss of on-street parking that meet the parking needs of the residents of Alfred Street North and adjacent streets; c) consulting with the residents at locations where on-street parking would be lost to confirm the preferred parking options; and d) identifying the parking measures to be implemented. A report on the outcomes of this condition must be documented and submitted to the Planning Secretary for approval within six months of construction commencing.	These works do not form part of the ACCIONA scope of works.
E143	The parking measures identified by Condition E142, must be delivered prior to impact, unless otherwise agreed by the Planning Secretary.	These works do not form part of the ACCIONA scope of works.

MCoA	Condition Requirements	Manner of compliance
	Note: Identified mitigation measures may need to be further assessed under the Environmental Planning and Assessment Act, 1979.	
E144	The CSSI must be designed to meet relevant design, engineering and safety guidelines, including the Austroads Guide to Traffic Management for new or modified local roads, parking, pedestrian and cycle infrastructure.	TTAMP (CEMP Appendix B)
E145	An independent Road Safety Audit must be undertaken to assess the safety performance of new or modified local road, parking, pedestrian and cycle infrastructure provided as part of the CSSI (including ancillary facilities) to ensure that they meet the requirements of relevant design, engineering and safety guidelines, including Austroads Guide to Traffic Management. The audit must be undertaken by an appropriately qualified and experienced person during detailed design development (audit of plans) and prior to opening (pre-opening audit). The audit findings and recommendations of the detailed design plans (audit of the plans) must be actioned prior to construction of the relevant infrastructure. The pre-opening audit findings and recommendations must be actioned prior to the relevant infrastructure being made available for use.	TTAMP (CEMP Appendix B)
E146	Direct vehicular access must be provided from Mount Street, North Sydney to Alfred Street North, Neutral Bay. Access must be provided in both directions.	TTAMP (CEMP Appendix B)
E147	The Proponent must prepare a Road Network Performance Plan in consultation with the relevant council(s). The Plan must incorporate operational traffic modelling results from the operation of major motorways including but not limited to WestConnex M4-M5 Link (SSI 7485) and WestConnex M8 (SSI 6788) projects (including any Road Network Performance Plan or Operational Road Network Performance Review prepared) and include: a) consideration of movement and place analysis and local initiatives, such as local area improvement strategies, potential and use changes, and any traffic changes as a result of other major projects in the vicinity of the project area; b) an updated analysis, including modelling of traffic impacts to the adjoining road network (including impacts on local roads from rat-running), as a consequence of the CSSI; c) an assessment of the performance of the road network, including: i) potential “pinch-points” where the merging of tunnel exit traffic and surface traffic would occur at Rozelle or along the Warringah Freeway; ii) traffic movements and congestion at various intersections in North Sydney, Cammeray and Rozelle/Annandale; iii) results of the Public Transport Review as required by Condition E153; and d) mitigation measures to manage predicted traffic performance impacts including local area traffic management and bus priority measures as relevant. The Road Network Performance Plan must be submitted to the Planning Secretary and relevant council(s) for information six months prior to the operation of the CSSI. The mitigation measures in the Plan must be	TfNSW will prepare a Road Network Performance Plan as required by this condition.

MCoA	Condition Requirements	Manner of compliance
	implemented by the Proponent before the operation of the CSSI. The Proponent is responsible for the implementation of identified measures under (c) above. Note: Identified mitigation measures may need to be further assessed under the Environmental Planning and Assessment Act,	
E148	The Proponent must prepare an Operational Road Network Performance Review, within 12 months and again within five years after the commencement of operation of the CSSI. The Review must address road network performance and review the effects of the CSSI on the adjoining road network. The Review must confirm whether the mitigation measures identified in the Road Network Performance Plan required under Condition E147 are adequate. The Review must be undertaken in consultation with relevant council(s) and be completed within six months of the review timeframes. The Review must be provided to the Planning Secretary within 60 days of its completion. The identification of further mitigation measures, if required, must be included in the Review. The Proponent is responsible for the implementation of the identified measures. Note: Identified mitigation measures may need to be further assessed under the Environmental Planning and Assessment Act, 1979. Work will need to meet relevant design standards and subject to independent road safety audits.	TfNSW will prepare an Operational Road Network Performance Review as required by this condition.
E149	Where bus stops are required to be temporarily closed, such closure must not occur until relocated bus stops that comply with relevant standards, are functioning, have similar capacity and amenity and are relocated within a 400 metre walking distance of the existing bus stop. Closures and relocation of bus stops during construction must be undertaken in consultation with relevant council(s). Wayfinding signage must be provided directing commuters to adjacent or relocated bus stops. Footpaths and (where required) road crossing facilities must be provided to any relocated bus stops such that accessibility and safety standards are met.	TTAMP (CEMP Appendix B)
E150	Prior to the commencement of operation, all bus stops temporarily closed must be reinstated in a manner that complies with relevant standards, provides equal or improved capacity, amenity and accessibility (including footpaths and road crossings) in consultation with relevant council(s).	TTAMP (CEMP Appendix B)
E153	A Public Transport Review must be prepared that identifies the following matters: a) confirmation and comparison of journey times during peak periods, within the year of opening and 10 years post opening, associated with bus routes that will interact with the CSSI (including those that operate within or across the project footprint or along strategic bus corridors that would have changed journey times resulting from the CSSI), with and without the CSSI; and b) measures that have been or can be implemented so that when compared to the without CSSI journey times, the CSSI would assist in: i) improved or maintained bus journey times on opening of the CSSI; and ii) maintaining bus journey times 10 years post-opening.	TfNSW will prepare a Public Transport Review as required by this condition.

MCoA	Condition Requirements	Manner of compliance
	A report of the Public Transport Review must be made publicly available six months prior to operation of the CSSI.	
E154	A Utility Coordination Manager must be appointed for the duration of the CSSI Work. The role of the Utility Coordination Manager must include, but not be limited to: a) the management and coordination of all utility Work associated with the delivery of the CSSI, to ensure respite is provided to the community; b) providing advice to the Public Liaison Officer(s) regarding upcoming utility Work, including the scope of the work and the responsibility for the Work; and c) investigating complaints received from the Community Complaints Mediator or the Public Liaison Officer(s) relating to utility Work and providing a response to the Community Complaints Mediator or Public Liaison Officer(s).	Section 5.22
E155	The CSSI must be constructed in a manner that minimises visual impacts of construction sites, including providing temporary landscaping and vegetative screening of the construction sites, minimising light spill, and incorporating architectural treatment and finishes within key elements of temporary structures that reflect the context within which the construction sites are located.	Section 5.20
E156	The place making, design and landscape outcomes of the CSSI must be informed by and be consistent with Appendix V of the EIS, including but not limited to the objectives and design principles, requirements and opportunities.	Section 5.20
E157	The CCSI must result in a net increase in usable open space. Replacement space must be in the general vicinity of the loss, unless agreed to by the Planning Secretary.	Section 5.20
E159	The Falcon Street bus on ramp must be refined during detailed design to mitigate visual and amenity impacts in consultation with those affected residential property owners of lots adjacent to where ramps extend beyond the existing (as at the date of this approval) top edge of the eastern rockface of the of the Warringah Freeway and to the satisfaction of the Planning Secretary. The final design of the Falcon Street bus on ramp must form part of the PDLP. Note: When seeking the Planning Secretary's satisfaction, the design must demonstrate how visual and amenity impacts (including: bulk, views, light spill. headlight glare and noise impacts) have been mitigated in consultation with the impacted residents. The submission must include how residents' comments have been addressed and any agreement with the residents on the final design.	Not Applicable
E160	Following the completion of the use of the St Leonards Park for ancillary facility WHT9, the site must be returned to public open space in consultation with North Sydney Council, to maximise usable open space.	Section 5.20
E161	The existing Ridge Street Lookout must form part of the design of the replacement Ridge Street Shared User Bridge.	Not Applicable

MCoA	Condition Requirements	Manner of compliance
E162	The CSSI must not preclude the delivery of the objectives proposed by the North Sydney Integrated Transport Program in consultation with the Government Architect NSW and North Sydney Council.	Noted.
E163	The Proponent must construct and operate the CSSI with the objective of minimising light spillage to surrounding properties. All lighting associated with the construction and operation of the CSSI must be consistent with the requirements of AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting and relevant Australian Standards in the series AS/NZ 1158 – Lighting for Roads and Public Spaces. Additionally, the Proponent must provide mitigation measures to manage any residual night lighting impacts to protect properties adjoining or adjacent to the CSSI, in consultation with affected landowners.	Section 5.19
E164	The Proponent must establish an independent Design Review Panel which must operate during detailed design and during construction. The process for the operation of the Panel, including the Panel's Terms of Reference and frequency of meetings, must be agreed to with the NSW Government Architect prior to the establishment of the Design Review Panel. The Terms of Reference must be consistent with the State Design Review Panel.	Section 5.21
E165	The Design Review Panel must provide advice and recommendations on the detailed design. The responsibilities of the Design Review Panel include: a) provide advice and recommendations for consideration in the development of the Place, Design and Landscape Plan (PDLP) required by Condition E177; b) provide advice on the application of the objectives to key design elements in relation to place making, architecture, heritage, urban and landscape design and artistic aspects of the CSSI; and c) provide advice on structures including bridges and flyovers (including the Alfred Street flyover and walking and cycling bridges across the Warringah Freeway). The Panel's advice must be consistent with the CSSI as approved.	Section 5.21
E166	The Design Review Panel must be chaired by the NSW Government Architect (or its nominee), and must be comprised of, where relevant, a suitably qualified, experienced and independent professional in each of the fields of: a) urban design and place making (including active transport); b) landscape architecture; c) architecture; and d) Aboriginal cultural heritage, non-Aboriginal cultural heritage. The Panel may seek advice from suitably qualified, experienced independent professionals in other fields as required.	Section 5.21

MCoA	Condition Requirements	Manner of compliance
E167	Panel members must be sourced from the State Design Review Panel Pool, approved by the Government Architect NSW (or its nominee). These panel members must be involved in the development and review of the PDLP required by Condition E177.	Section 5.21
E168	Advice letters by the Design Review Panel Members and logs which demonstrate how each piece of advice is considered and addressed, must be included when submitting the PDLP to the Planning Secretary for approval.	Section 5.21
E169	The Proponent must nominate an appropriately qualified and experienced representative of Transport for NSW to act as advisor to the Design Review Panel. The advisor must be invited to attend all meetings of the Panel. The advisor may also be invited by the Panel to assist with decisions regarding the Panel's recommendations.	Section 5.21
E170	Other representatives of the Proponent and its contractor(s) may be invited to attend the Panel meetings as observers or to provide technical advice.	Section 5.21
E171	The relevant council may be invited to the meetings of the Panel as observers or to provide feedback on key design elements of the CSSI.	Section 5.21
E172	Observers and the Proponent's representative should not be present while the Panel is deciding upon its recommendations unless requested by the Panel.	Section 5.21
E173	The Proponent must provide independent secretarial resources to the Panel.	Section 5.21
E174	Once the Design Review Panel is formed, a Design Review Panel Terms of Reference is to be developed and endorsed by all panel members. The Terms of Reference must be submitted to the Planning Secretary for information and: a) establish governance and protocols for the operation of the Design Review Panel; b) include a Code of Conduct; c) outline the agreed frequency of Design Review Panel meetings, coordinated with the Proponent's program requirements, to ensure timely advice and design adjustment; d) outline secretariat functions and administration including the recording and storing of meeting agendas, minutes and actions; and e) identify cessation arrangements.	Section 5.21
E175	The Design Review Panel must be operated and managed in accordance with the approved Design Review Panel Terms of Reference and in accordance with the NSW Government Boards and Committees Guidelines (Department of Premier and Cabinet, September 2015).	Section 5.21
E176	The Proponent must provide to the Design Review Panel the design development schedule, including details of when relevant elements of the detailed design will be available for review by the Panel. The schedule must be updated every three months until the detailed design process is complete.	Section 5.21

MCoA	Condition Requirements	Manner of compliance
E177	A PDLP must be prepared to inform the final design of the CSSI and to give effect to the outcomes informed by Condition E156 and design review. The Plan does not apply to work, which for technical, engineering, or ecological requirements, or other requirements as agreed by the Planning Secretary, do not allow for alternative design outcomes.	Section 5.21
E178	The PDLP must be prepared by a suitably qualified and experienced person in consultation with relevant councils, the community and affected landowners and businesses. The PDLP must include: a) outcomes from the Design Review Panel as required by Condition E165; b) an analysis of the built, natural and community context and the urban design objectives, principles and standards for the CSSI; c) the design of the CSSI elements including their form, materials and detail, with a focus on high quality bridge design, public space, and integrated art; d) the design of the project landform and earthworks; e) the design of usable open space; f) the location of existing vegetation, areas of vegetation to be retained and proposed planting and seeding details, including the use of local indigenous species for revegetation activities; g) the location of existing heritage items; h) details of how Aboriginal and non-Aboriginal heritage (including maritime) interpretation and public art are incorporated within the design of built features, having regard to the results of any archaeological investigations; i) visual screening requirements; j) design of the Falcon Street bus on ramp as required by Condition E159; k) developed visuals, cross sections and plans showing the proposed design outcome; l) details of strategies to rehabilitate, regenerate or revegetate disturbed areas; and m) management and routine maintenance standards and regimes for design elements and landscaping work (including weed management) to ensure the success of the design and landscape outcomes.	Section 5.21
E179	The PDLP, and any sub-plans, must be reviewed by the Design Review Panel. The Proponent must respond to the outcomes of the Design Review Panel's review and submit the PDLP (including evidence of response to the Design Review Panel's advice) to the Planning Secretary for approval no later than one month before the construction of permanent work that is the subject of the PDLP (s) (in the area to which the PDLP applies).	Section 5.21
E180	Unless otherwise agreed with the Planning Secretary, construction of permanent built work or landscaping that are the subject of the PDLP must not be commenced (in the area to which the PDLP applies) until the PDLP has been approved by the Planning Secretary, after considering advice received from the Design Review Panel.	Section 5.21
E181	The PDLP, as approved by the Planning Secretary, must be implemented during construction and operation.	Section 5.21

MCoA	Condition Requirements	Manner of compliance
E182	Operational noise barriers must be designed to minimise visual and amenity impacts and be designed in accordance with the Noise wall design guideline – Design guideline to improve the appearance of noise walls in NSW (RMS, March 2016).	Section 5.21
E183	The construction of the Massey to Amherst Street, Cammeray noise barrier / wall as identified in Appendix C does not form part of the PDLP.	Not Applicable
E184	The CSSI must be designed to retain as many existing trees as possible. Replacement trees and plantings must be provided at a ratio of 2:1 and deliver an increase in tree canopy and aim to enhance the relevant council's position in respect of the Sydney Green Grid, unless otherwise agreed by the Planning Secretary.	FFMP (CEMP Appendix C)
E185	Replacement trees must: a) be located on public land and prioritised within 500 metres of the Construction Boundary, that delivers increased shading to footpaths, pedestrian and cycle paths; b) be of a species suitable to the location, having regard for local ecology and existing street trees; c) meet the requirements for quality tree stock specified in the AS2303:2018: Tree Stock for Landscape Use; d) be provided no later than six months following the commencement of operation; and e) have a minimum pot size consistent with the relevant council's plans / programs / strategies for vegetation management, street planting, or open space landscaping, or as agreed by the relevant council(s).	FFMP (CEMP Appendix C)
E186	Replacement and enhancement of vegetative screening along the project corridor must be undertaken in a progressive manner during construction to allow for the early establishment of vegetative screening.	Section 5.20 FFMP (CEMP Appendix C)
E187	A Landscape Strategy Report must be prepared which details the type, size, number and location of replacement trees. The report must demonstrate how any replacement plantings are consistent with the requirements of Condition E184 and Condition E185. The report must be submitted to the Planning Secretary for information no later than nine months following the commencement of operation.	Section 5.20 FFMP (CEMP Appendix C)
E189	The Proponent must engage a suitably qualified and experienced landscape architect to develop the design of the open space at Berrys Bay. The design must be provided as part of the PDLP.	Section 5.21
E190	The design required by Condition E189 must include an extended path along the foreshore between Carradah Park and Balls Head Road, using the same or similar materials to those used for pathways within Carradah Park to ensure continuity along the foreshore in this location.	Section 5.21
E191	Public domain works as required by Condition E189 and E190 must be completed prior to operation of the tunnel unless otherwise agreed by the Planning Secretary.	Section 5.20
E192	The ongoing maintenance and operation costs of urban design, open space, landscaping and recreational items and work implemented as part of this approval remain the Proponent's responsibility until satisfactory	Section 5.20

MCoA	Condition Requirements	Manner of compliance
	arrangements have been put in place for the transfer of the asset to the relevant authority. Before the transfer of assets, the Proponent must maintain items and work to at least the design standards established in the PDLP, required by Condition E178. The Planning Secretary must be advised of the date of transfer of the asset(s) to the relevant authority.	
E193	Should any plant loss occur during the maintenance period the plants should be replaced by the same plant species unless it is determined by a suitably qualified person that a different species is more suitable for that location.	Section 5.20
E194	Management and routine maintenance for design elements and landscaping work (including weed management) to ensure the success of the design and landscape outcomes must be undertaken for the life of the CSSI.	Section 5.20
E195	An Active Transport Network Review must be prepared in consultation with relevant Councils, Bicycle NSW and Bike North. The Active Transport Network Review must review active transport infrastructure within at least 500m of the Warringah Freeway corridor component of the CSSI and include: a) an analysis of the existing cycling network, including the identification of routes between existing and potential trip generators; b) an analysis of existing and expected patronage levels of current and proposed routes; c) identification of capacity constraints or missing links in the existing and proposed networks, including consideration of both State and Council cycling strategies and maps (including draft strategies) and expected demand; d) a calculation of pedestrian crowding and the suitability of shared facilities; and e) a list of recommendations and the timeframes for implementation to address the findings of (a), (b), (c) and (d) above. The Review must be provided to the Planning Secretary for approval within 12 months of commencement of construction. Note: Implementation timeframes must be reasonable, reflect network needs, and the objective of offsetting open space impacts (particularly in relation to open space impacts at Cammeray).	Section 5.20
E196	The recommendations identified in Condition E195(e) must be implemented by the Proponent in the timeframes approved by the Planning Secretary.	Section 5.20
E197	An active transport link through Cammeray Golf Course between Ernest Street and Warringa Road / Bells Avenue, Cammeray must be provided prior to the removal of the existing path.	Not Applicable to WHT
E198	An active transport link from Cammeray Golf Course to Primrose Park, must be considered as part of the Active Transport Network Review as required by Condition E195.	Not Applicable to WHT

MCoA	Condition Requirements	Manner of compliance
E199	A level extension of the existing footpath along the eastern side of the Cahill Expressway from the top of the stairs near the former toll gantry in Kirribilli, to the existing pedestrian crossing on High Street, North Sydney must be considered as part of the Active Transport Network Review required by Condition E195.	Not Applicable to WHT
E200	The Proponent must investigate alternative crossings of the Falcon Street diverging diamond interchange, including but not limited to consideration of an overpass, reduction in the number of crossings or priority phasing of traffic lights for pedestrians and cyclists. The investigations must be provided as a report and submitted to the Planning Secretary for approval, within six months from the commencement of construction. The findings of the investigations must be implemented following Planning Secretary approval.	Not Applicable to WHT
E201	Waste generated during construction and operation must be dealt with in accordance with the following priorities: a) waste generation must be avoided and where avoidance is not reasonably practicable, waste generation must be reduced; b) where avoiding or reducing waste is not possible, waste must be re-used, recycled, or recovered; and c) where re-using, recycling or recovering waste is not possible, waste must be treated or disposed of.	WRMP (CEMP Appendix J)
E202	The importation of waste and the storage, treatment, processing, reprocessing or disposal of such waste must comply with the conditions of the current EPL for the CSSI, or be done in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, as the case may be.	WRMP (CEMP Appendix J)
E203	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, or to any other place that can lawfully accept such waste.	WRMP (CEMP Appendix J)
E205	All waste must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes.	WRMP (CEMP Appendix J)
E206	The CSSI must be designed, constructed and operated so as to maintain the NSW Water Quality Objectives where they are being achieved as at the date of this approval, and contribute towards achievement of the NSW Water Quality Objectives over time where they are not being achieved as at the date of this approval, unless an EPL in force in respect of the CSSI contains different requirements in relation to the NSW Water Quality Objectives, in which case those requirements must be complied with.	SSWMP (CEMP Appendix E) GWMP (CEMP Appendix F)
E207	The Proponent must consider the Guidelines for controlled activities on waterfront land Riparian corridors (Department of Industry 2018) when carrying out work within 40 metres of a watercourse, including its bed.	SSWMP (CEMP Appendix E)

MCoA	Condition Requirements	Manner of compliance
E208	Unless an EPL is in force in respect to the CSSI and that licence specifies alternative criteria, discharges from construction water treatment plants to surface waters must not exceed: a) the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2018 (ANZG 2018) default guideline values for toxicants at the 90 per cent species protection level; b) for physical and chemical stressors, the guideline values set out in Tables 3.3.2 and 3.3.3 of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000; and c) for bioaccumulative and persistent toxicants, the ANZG 2018 values at a minimum of 95 per cent species protection level. Where the ANZG 2018 does not provide a default guideline value for a particular pollutant, the approaches set out in the ANZG 2018 for deriving guideline values, using interim guideline values and/or using other lines of evidence such as international scientific literature or water quality guidelines from other countries, must be used.	SSWMP (CEMP Appendix E) GWMP (CEMP Appendix F)
E209	A replacement stormwater harvesting storage facility / dam must be provided within the boundaries of Cammeray Golf Course in consultation with North Sydney Council and Cammeray Golf Club (at no cost to either party). Should the new stormwater harvesting storage facility not be operational prior to the dewatering of the existing dam, the Proponent must pay all water usage costs (associated with the use of the harvesting storage facility / dam) incurred by Council or the golf club until the replacement facility is operational. Note: Condition C6(f) provides requirements for relocating native fauna species within and around the stormwater harvesting storage facility / dam.	Not Applicable to WHT
E210	If construction stage stormwater discharges are proposed, a water pollution impact assessment will be required to inform licensing consistent with section 45 of the POEO Act. Any such assessment must be prepared in consultation with the EPA and be consistent with the National Water Quality Guidelines, with a level of detail commensurate with the potential water pollution risk.	SSWMP (CEMP Appendix E) GWMP (CEMP Appendix F)
E211	Unless an EPL is in force in respect to the CSSI and that licence specifies alternative criteria, discharges from operation water treatment plants to surface waters must not exceed: a) the ANZG 2018 default guideline values for toxicants at the 95 per cent species protection level; b) for physical and chemical stressors, the guideline values set out in Tables 3.3.2 and 3.3.3 of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ, 2000); and c) for bioaccumulative and persistent toxicants, the ANZG 2018 guideline values at a minimum of 99 per cent species protection level.	SSWMP (CEMP Appendix E) GWMP (CEMP Appendix F)

MCoA	Condition Requirements	Manner of compliance
	Where the ANZG 2018 does not provide a default guideline value for a particular pollutant, the approaches set out in the ANZG 2018 for deriving guideline values, using interim guideline values and/or using other lines of evidence such as international scientific literature or water quality guidelines from other countries, must be used.	
E216	The Proponent must take measures to limit operational groundwater inflows into each tunnel to no greater than one litre per second across any given kilometre (1L/s/km). Compliance with this condition cannot be determined by averaging groundwater inflows across the length of the tunnel(s).	Not applicable
E217	Make good provisions for groundwater users must be provided in the event of a material decline in water supply levels, quality or quantity from registered existing bores associated with groundwater changes from either construction and/or ongoing operational dewatering caused by the CSSI.	GWMP (CEMP Appendix F)
E218	Further modelling must be undertaken of groundwater drawdown, tunnel inflows and saline water migration (using particle tracking) prior to finalising the detailed design of the tunnels and undertaking any works that would impact on groundwater flows or levels. The modelling must be undertaken in consultation with DPIE Water and include the results and hydrogeological analyses of at least 12 continuous months of current baseline groundwater monitoring data.	GWMP (CEMP Appendix F)
E219	The results of the modelling required by Condition E218 must be documented in a Groundwater Modelling Report. The Groundwater Modelling Report must be finalised in accordance with the Australian Groundwater Modelling Guidelines (National Water Commission, 2012), be independently peer reviewed by an expert (agreed to by DPIE Water), and prepared in consultation with DPIE Water. The Groundwater Modelling Report must include, but not be limited to: a) modelling for groundwater flow for one, three and 12 months following the commencement of construction in each kilometre of tunnel and during operation; b) justification for the conceptual model adopted and layer choice; c) a more representative distribution of rock mass permeability than the modelling results detailed in the documents referred to in Condition A1; d) a revised distribution of rock mass permeability with transient drawdown predictions during excavation and dewatering assessed for sensitivity to assumed values of aquifer confinement and storage (specific storage and specific yield); e) specification and justification of the grid based hydraulic conductivity and storage parameters (specific yield and specific storage) assigned to each layer and/or zone with reference to those values determined from data analyses and the literature; f) an explanation of how groundwater flow was simulated within each model layer with reference to confined, unconfined or variably saturated flow solutions; g) an explanation and justification of the drain-cell conductance term(s) applied to the tunnel boundaries to limit tunnel inflows;	GWMP (CEMP Appendix F)

MCoA	Condition Requirements	Manner of compliance
	h) an explanation and justification of the groundwater recharge values applied across the model domain, including around the modelled specific yield values and the water table fluctuations observed within the monitoring data in response to rainfall-fed groundwater recharge; i) details (including figures) of the expected changes in groundwater flow directions in the vicinity of landfills, groundwater wells and surface water receptors; j) cross-section diagrams of geology showing baseline groundwater levels in the monitoring piezometers, and for the predicted baseline condition groundwater levels in 2030 and 2100; k) statistical evaluation of the model's calibration; l) details of the groundwater monitoring data inputs (levels and quality); m) details of the proposed groundwater model update and validation as additional data is collected; n) assessment of impacts of groundwater drawdown, taking into consideration the NSW Aquifer Interference Policy (DPI, 2012), including potential impacts on licensed bores and groundwater dependent ecosystems; o) references to the differences between modelled and observed groundwater impacts for previous tunnelling projects in the Sydney Basin including the WestConnex New M5 (M8), the WestConnex M4 East and the WestConnex M4-M5 Link projects (where the information can be made available); p) a comparison of the results with the modelling results detailed in the documents referred to in Condition A1; q) documentation of any additional measures that would be implemented to manage and/or mitigate groundwater impacts not previously identified or identified but at a smaller scale; r) a quantitative assessment of model predictive uncertainty at locations of primary importance for predictions of drawdown induced settlement, contaminant mobilization, and impact to surface water systems; and s) quantitative predictions of contaminant mobilization risk by providing groundwater model based predictions of the changes in groundwater gradient magnitude and direction at identified contaminant sites due to construction and operation or particle tracking simulations. A copy of the Groundwater Modelling Report (including the independent peer review) must be submitted to the Planning Secretary for information prior to finalising the tunnel design. The Groundwater Modelling Report must include details of consultation with DPIE Water. The calibration and modelling to be provided to the independent peer reviewer and DPIE Water must be in an electronic quality controlled data ready-to-use format. Note: The new modelling results could include analysis of the available field data and existing model calibration residuals to infer the differences between rock mass primary permeability (low) and secondary permeability (high) in areas where valley uplift has occurred and where dykes have intruded through weaker rock. The numerical	

MCoA	Condition Requirements	Manner of compliance
	model calibration could then be revised to potentially improve the calibration to observed data and local-scale predictions.	
E220	The groundwater model must be updated once 24 months of groundwater monitoring data are available and the results of the updated modelling (assessed against all predicted outcomes of the Groundwater Modelling Report that accompanied the final detailed design of the tunnels) be provided to the Planning Secretary and DPIE Water in an updated Groundwater Modelling Report.	GWMP (CEMP Appendix F)
E221	The total incidental groundwater take from the tunnel should be measured at a minimum monthly and totalled yearly for the life of the CSSI. These volumes must be reported to DPIE Water annually.	GWMP (CEMP Appendix F)
E222	The Proponent must undertake further hydrological and hydraulic modelling based on the detailed design of the CSSI to determine the ability of the receiving drainage systems to effectively convey pavement drainage from the CSSI and include wastewater flows from operational water treatment plants where it is proposed to discharge these flows to the receiving drainage systems. The modelling must be undertaken in consultation with the relevant council(s) and Sydney Water and the outcomes documented in the Stormwater Drainage Report required under Condition E223.	Section 5.5
E223	The Stormwater Drainage Report must be prepared at least one month prior to the commencement of any new permanent drainage works, modifications or connections to existing drainage works, construction of hard surfaces that are associated with the operation of the project and would result in runoff to existing stormwater drainage systems, and the discharge of wastewater flows from operational water treatment plants to existing stormwater drainage systems. The Stormwater Drainage Report must: a) assess the potential impacts of pavement drainage discharges from the CSSI drainage systems and wastewater flows from operational water treatment plants on the receiving environment and capacity of council or Sydney Water drainage infrastructure; b) identify all mitigation measures to be implemented where pavement drainage from the CSSI drainage systems or wastewater flows from operational water treatment plants are predicted to adversely impact on the receiving environment or capacity of council or Sydney Water drainage infrastructure; and c) set out a clear time frame for the implementation of mitigation measures. Nothing in this condition prevents the Proponent from preparing separate Stormwater Drainage Reports for pavement discharges or wastewater discharges from operational water treatment plants to the drainage system provided that each report is prepared at least one month prior to the subject works/discharges commencing.	Section 5.5
E224	All new or modified drainage systems associated with the CSSI must be designed to: a) meet the capacity constraints of any council's drainage system to receive and convey the proposed flows from the CSSI, or otherwise upgrade council's drainage system at the Proponent's expense, in consultation with the relevant council(s);	Section 5.5

MCoA	Condition Requirements	Manner of compliance
	b) minimise 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 c) ensure mitigation measures are implemented where increased flows through cross drainage systems adversely impact on council or Sydney Water drainage infrastructure and the receiving environment.	

Revised Environmental Management Measures – proposed modified project

REMM No.	Condition Requirements	Document Reference
CNV1	A Construction Noise and Vibration Management Plan will be developed for the project. This plan will: a) Identify relevant criteria and management levels in relation to noise and vibration b) Identify noise and vibration sensitive receivers and features in the vicinity of the project c) Include standard and additional mitigation from the Construction Noise and Vibration Guideline (Roads and Maritime, 2016a) and detail how and when these will be applied in the project d) Describe the approach that will be adopted for carrying out location and activity specific constructing noise and vibration impact assessments to assist with designing and selecting of the appropriate mitigation and management measures e) Include protocols that will be adopted to manage works required outside standard construction hours f) Detail the methodology and approach for managing residual construction noise impacts f) Detail the methodology and approach for managing residual construction noise impacts g) Detail the process for managing construction vibration, including heritage structures considering all types of vibration generating works, including blasting h) Outline the procedures and approach for noise and vibration monitoring to be carried out to confirm construction noise and vibration levels in relation to noise and vibration management levels i) Where feasible and reasonable, detail how construction noise impacts from concurrent or consecutive nearby construction works associated with the project will be managed. The Construction Noise and Vibration Management Plan will be implemented for the duration of construction of the project.	Refer to Table 4-1 Refer to NVMP (Appendix D)
CNV2	Detailed Construction Noise and Vibration Impact Statements will be carried out for all construction support sites and major construction works required for the project prior to the commencement of construction. The Statements will consider the proposed site layouts and noise and vibration generating activities that will take place during all major stages of the construction support site, assess predicted noise and vibration levels against the relevant management levels, and incorporate feasible and reasonable mitigation and management measures in accordance with the requirements of the Interim Construction Noise Guideline (DECC, 2009) and the Construction Noise and Vibration Guideline (Roads and Maritime, 2016a).	Refer to Table 4-1 & Table 5-2 Refer to NVMP (Appendix D)
CNV3	An out of hours works protocol will be developed for the construction of the project. The protocol will include: a) Details of works required outside standard construction hours, including acceptable justifications for works outside of standard construction hours, what types of works are allowed to take place outside of construction hours, and justifications of why the activities are required outside standard construction hours	Refer to Table 4-1 Refer to NVMP (Appendix D)

REMM No.	Condition Requirements	Document Reference
	b) Details of the assessment and approval process (internal and external) for works proposed outside standard construction hours c) Noise and vibration mitigation and management measures that are to be considered and implemented where appropriate to manage potential impacts associated with works outside standard construction hours d) The noise and vibration impact assessment processes that will be followed to identify potentially affected receivers, clarify potential impacts and determine appropriate mitigation and management measures. The protocol will be prepared in consultation with the Department of Planning, Industry and Environment and the NSW Environment Protection Authority, and independently endorsed. The project protocol will be implemented during the duration of the construction of the project.	
CNV4	Construction noise and vibration impacts will be monitored periodically throughout all stages of the construction support sites to ensure that: a) Impacts are consistent with the noise and vibration levels detailed in the relevant Construction Noise and Vibration Impact Statements b) Noise and vibration impacts are being appropriately managed c) Mitigation measures are effective.	Refer to NVMP (Appendix D)
CNV5	Where feasible and reasonable, unless compliance with the relevant traffic noise criteria can be achieved, or alternative arrangements have been agreed with affected receivers, construction vehicle movements will not occur on local roads beyond those required for direct access to construction sites.	Refer to TTAMP (Appendix B) & NVMP (Appendix D)
CNV6	Vibration generating activities will be managed through the establishment of minimum buffer distances to achieve screening levels. Where vibration levels are predicted to exceed the screening levels, a more detailed assessment of the impacted structure and attended vibration monitoring will be carried out to ensure vibration levels remain below appropriate limits for that structure. For heritage items, the more detailed assessment will specifically consider the heritage values of the structure in consultation with a heritage specialist to ensure sensitive heritage fabric is adequately monitored and managed. Any damage caused by the project will be rectified.	Refer to NVMP (Appendix D), NAHMP (Appendix G) & ACHMP (Appendix H)
CNV7	Feasible and reasonable measures will be implemented to minimise ground-borne noise where exceedances are predicted.	Refer to NVMP (Appendix D)
CNV8	Mitigation measures will be implemented for surface road works, local area and utility works, where construction activities are predicted to exceed noise management levels at receivers. Where feasible and reasonable the approaches that will be used include: a) Carrying out works during the daytime period when near residential receivers	Refer to NVMP (Appendix D)

REMM No.	Condition Requirements	Document Reference
	b) Selection of plant and equipment to minimise noise and vibration impacts c) Management of plant and equipment to minimise the generation of noise and vibration impacts d) Community consultation, engagement and notification e) Detailed programming and respite protocols f) Where out of hours works are required, programming the noisiest activities to occur during the less sensitive time periods g) Out of hours works protocols h) Limiting timing of noise intensive work i) Use of portable noise barriers around particularly noisy equipment such as concrete saws and rock hammers in cases where it will effectively reduce noise levels at nearby receivers j) Management of construction traffic to minimise movements during the night periods along local roads k) Establishing minimum vibration buffer distances for vibration intensive works l) Vibration and blasting trials and/or monitoring along with building condition surveys.	
CNV9	A Blast Management Strategy will be prepared in consultation with the NSW Environment Protection Authority to demonstrate that all blasting and associated activities will be carried out in a manner that will not generate unacceptable noise and vibration impacts or pose a significant risk impact to structures and sensitive receivers. a) Detail the blasting to be performed including location, method and justification of the need to blast b) Identify any potentially affected noise and vibration sensitive sites including heritage buildings and utilities c) Establish appropriate criteria for blast overpressure and ground vibration levels at each category of noise sensitive site d) Detail storage and handling arrangements for explosive materials and the proposed transport of those materials to the construction support site e) Identify 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 f) Determine potential noise and vibration and risk impacts from blasting and appropriate best management practices g) Detail community consultation procedures.	Refer to NVMP (Appendix D)
CNV10	Construction noise from concurrent and consecutive construction works will be managed to minimise cumulative construction noise impacts. Where feasible and reasonable the approaches that will be used include: a) Coordinating work between project construction sites and construction works to avoid cumulative noise impacts	Refer to NVMP (Appendix D)

REMM No.	Condition Requirements	Document Reference
	b) Consideration of additional at source or near source mitigation where construction noise levels may result in cumulative construction noise impacts, where programming is not practical to avoid cumulative noise impacts c) Community consultation throughout the project to gauge construction key noise impacts and issues and any unknown impacts from concurrent or consecutive sets of constructions works d) Incorporating additional noise mitigation and management measures with consideration of cumulative and consecutive construction noise impacts based upon coordination between projects.	
CNV11	Consultation with the owner/occupier of 17 and 19 Railway Street, Emu Plains will occur prior to the commencement of haulage during non-standard construction hours to determine appropriate mitigation measures.	Refer to NVMP (Appendix D)
ONV1	The operational noise performance of the project will be reviewed during detailed design and operational noise mitigation (low noise pavement, noise barrier, at-property treatment or a combination of treatments) will be confirmed in accordance with relevant policies and guidelines.	Refer to NVMP (Appendix D)
ONV2	Within 12 months of the commencement of the operation of the project, actual operational noise performance will be compared to predicted operational noise performance (as reviewed during detailed design) to analyse the effectiveness of the operational road traffic noise mitigation measures. Additional reasonable and feasible mitigation will be considered where any additional receivers are identified as qualifying for consideration of noise mitigation under the Noise Mitigation Guideline (Roads and Maritime, 2015b).	Not Applicable
ONV3	Operational fixed facilities will be designed to meet project specific noise criteria derived in accordance with the Noise Policy for Industry (NSW EPA, 2017a).	Section 5.5 Refer to NVMP (Appendix D)
CTT1	A road dilapidation report will be prepared, in consultation with relevant councils and road owners, identifying existing conditions of local roads and mechanisms to repair damage to the road network caused by heavy vehicle movements associated with the project.	Refer to TTAMP (Appendix B)
CTT2	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
CTT3	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
CTT4	Ongoing consultation will be carried out with (as relevant to the location) Transport Coordination within Transport for NSW, the Port Authority of NSW, local councils, emergency services and bus operators to minimise traffic and transport impacts during construction.	Refer to TTAMP (Appendix B)
CTT5	The community will be notified in advance of proposed transport network changes, and maritime restrictions through appropriate media and other appropriate forms of community liaison.	Refer to TTAMP (Appendix B)
CTT6	Construction road traffic will be managed to minimise movements during peak periods	Refer to TTAMP (Appendix B)

REMM No.	Condition Requirements	Document Reference
CTT7	Vehicle movements to and from construction sites will be managed to ensure pedestrian, cyclist and motorist safety. Depending on the location, this may require manual supervision, physical barriers, temporary traffic signals and modifications to existing signals or, on occasion, police presence.	Refer to TTAMP (Appendix B)
CTT8	Directional signage, barriers and/or linemarking will be used as required to direct and guide drivers, cyclists and pedestrians past construction sites and on the surrounding network. This will be supplemented by Variable Message Signs to advise drivers of potential delays, traffic diversions, speed restrictions, or alternative routes.	Refer to TTAMP (Appendix B)
CTT9	Where provision of construction on-site parking cannot accommodate the full construction workforce, feasible and reasonable management measures that minimise impacts on parking on local roads will be identified and implemented. Depending on the location, management measures may include workforce shuttle buses and the use of public transport.	Refer to TTAMP (Appendix B)
CTT10	Any adjustments to existing bus stops will be determined in consultation with relevant stakeholders including other divisions of Transport for NSW and advanced notification will be provided to affected bus customers. Relocations will be as close as feasible and reasonable to their existing position.	Refer to TTAMP (Appendix B)
CTT11	Truck marshalling areas will be identified and used where feasible and reasonable, to minimise potential queueing and traffic and access disruptions in the vicinity of construction support sites.	Refer to TTAMP (Appendix B)
CTT12	Activities requiring partial and full road closures will occur outside of peak periods and/or during night time to minimise the impact of these activities on the road network where feasible and reasonable.	Refer to TTAMP (Appendix B)
CTT13	Partial or full closures of Warringah Freeway will be carried out in consultation with Transport Coordination within Transport for NSW.	Not Applicable
CTT14	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
CTT15	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
CTT16	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
CTT17	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
CTT18	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
CTT19	Direct impacts to existing shared user paths will be minimised where WHT/WFU reasonable and feasible. Any detours and adjustments will be designed with consideration of user safety and convenience.	Refer to TTAMP (Appendix B)
OT1	A review of operational network performance will be carried out 12 months and five years from the opening of the project to confirm the operational impacts of the project on surrounding arterial roads and major intersections. The assessment will be based on updated traffic data at the time and the methodology used will be comparable with that used in this assessment.	Not Applicable

REMM No.	Condition Requirements	Document Reference
OT2	Conversion of transit lanes to regular traffic lanes along Gore Hill Freeway will be considered if there is a traffic performance requirement/benefit in peak times.	Not Applicable
OT3	Opportunities to reduce or offset the permanent loss of long stay parking spaces along Alfred Street North due to the project will be investigated during further design development.	Not Applicable
OT4	During further design development, the project will investigate opportunities for additional pedestrian connections across Ernest Street that would improve connectivity between active transport paths and public open space in the area.	Not Applicable
AQ1	Standard construction air quality mitigation and management measures will be detailed in construction management documentation and implemented during construction, such as: a) Reasonable and feasible dust suppression and/or management measures, including the use of water carts, dust sweepers, sprinklers, dust screens, site exit controls (eg wheel washing systems and rumble grids), stabilisation of exposed areas or stockpiles, and surface treatments b) Selection of construction equipment and/or materials handling techniques that minimise the potential for dust generation c) Management measures to minimise dust generation during the transfer, handling and on site storage of spoil and construction materials (such as sand, aggregates or fine materials) (eg the covering of vehicle loads) d) Adjustment or management of dust generating activities during unfavourable weather conditions, where possible e) Minimisation of exposed areas during construction f) (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour) g) Internal project communication protocols to ensure dust-generating activities in the same area are coordinated and mitigated to manage cumulative dust impacts of the project h) Site inspections will be carried out to monitor compliance with implemented measures.	Refer to AQMP (Appendix I)
AQ2	Dust and air quality complaints will be managed in accordance with the overarching complaints handling process for the project. Appropriate corrective actions; if required, will be taken to reduce emissions in a timely manner.	Refer to AQMP (Appendix I)
HH1	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
HH2	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
NAH1	The Lavender Street toll gantry will be designed to avoid direct impact with the heritage item and to minimise visual obstruction of the Lavender Streetarch in consultation with relevant stakeholders. All works potentially affecting the Sydney Harbour Bridge will be carried out in accordance with Sydney Harbour Bridge Draft Conservation Management Plan ~~2007~~ 2020.	Not Applicable

REMM No.	Condition Requirements	Document Reference
NAH2	Appropriate heritage interpretation will be incorporated into the urban design for the project in accordance with the NSW Heritage Manual (NSW Heritage Office and Department of Urban Affairs and Planning, 1996), Interpreting Heritage Places and Items: Guidelines (Roads and Maritime, 2005), and the Heritage Interpretation Policy (NSW Heritage Council, 2005).	Applicable Refer to NAHMP (Appendix G)
NAH3	Impacts to areas of archaeological potential will be avoided by the project. In the event that works are required in the location of the air raid trenches, an archaeological excavation will be required with a test excavation methodology prepared in consultation with relevant stakeholders prior to the disturbance of this area.	Not Applicable
NAH4	Should at-property noise treatment be required at a premises that is heritage listed, this will be carried out in a manner to minimise heritage impact, and advice of a heritage conservation architect will be sought prior to undertaking the works. Any treatment will be sympathetic to the heritage values of the item, designed with heritage architect input and be reversible where feasible and reasonable.	Refer to NVMP (Appendix D) & NAHMP (Appendix G)
NAH5	Archival recording will be carried out in accordance with the Photographic Recording of Heritage Items Using Film or Digital Capture guideline for areas/items subject to change within the following terrestrial items, in accordance with Appendix J (Technical Working Paper: Non-Aboriginal heritage working paper): a) (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour) b) (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour) a) Item 7: BP site, Waverton b) Item 9: North Sydney Bus Shelters c) Item 10: St Leonards Park (including W. Tunks Memorial Fountain, War Memorial, and North Sydney Oval), North Sydney d) Item 14: Cammeray Park (including Golf Course), Cammeray e) Item 15: Cammeray Conservation Area, Cammeray. Archival recording will be completed prior to any works that have the potential to impact upon the items, and deposited with appropriate stakeholders as determined during detailed design (eg local councils).	Refer to NAHMP (Appendix G)
NAH6	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
NAH7	Should heritage buildings be changed externally, such as by adding cladding or extensions, further assessment will be carried out to identify approaches to avoid heritage fabric and/or minimise impact on heritage significance. This will include consideration of how works can be carried out to facilitate subsequent adaptive reuse or to minimise incremental impacts.	Refer to NAHMP (Appendix G)
NAH8	A thematic heritage study of golf courses in Sydney will be prepared for the region north of the Sydney Harbour. This study will assist in identifying other potential heritage items in the region that demonstrate the same or similar significance as the Cammeray Golf Course.	Not Applicable

REMM No.	Condition Requirements	Document Reference
NAH9	Archaeological investigations will be carried out at: a) (Deleted by Modification 2 – TBM solution of crossing Sydney Harbour) b) Item 7: BP site, Waverton.	Refer NAHMP (Appendix G)
NAH10	If at any time during construction of the project, historical heritage materials, features and/or deposits are encountered, the Standard Management Procedure: Unexpected Heritage Items (Roads and Maritime, 2015d) will be followed.	Refer NAHMP (Appendix G)
NAH11	In the event that construction of the project reveals possible human skeletal material (remains), Standard Management Procedures – Unexpected Heritage Items (Roads and Maritime, 2015e) will be implemented.	Refer to NAHMP (Appendix G) & ACHMP (Appendix H)
NAH12	Non-Aboriginal historical heritage awareness training will be provided for contractors prior to commencement of construction works to ensure understanding of potential heritage items that may be impacted during the project, and the procedure required to be carried out in the event of discovery of historical heritage materials, features or deposits, or the discovery of human remains.	Refer NAHMP (Appendix G)
NAH13	The heritage item will be rehabilitated and returned to an equivalent state prior to the operation of the tunnel will include investigating the adaptive reuse of the site for the wider community.	Refer to NAHMP (Appendix G)
NAH14	The North Sydney bus shelters (Item 9) will be temporarily removed, stored and relocated on completion of construction work in consultation with North Sydney Council.	Not Applicable
NAH15	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
NAH16	A Maritime Heritage Management Plan that details the objectives and methodologies to conserve maritime heritage and mitigate impacts will be prepared in consultation with a qualified and experienced maritime archaeologist. The Maritime Heritage Management Plan should specify: a) Unexpected finds protocols relevant to each type of activity b) Artefact management procedures, including identification of approved submerged reburial locations c) Relevant work method requirements and maritime heritage inductions tailored for each type of work activity d) Exclusion zone, archival, baseline and periodic monitoring protocols including before and during construction, and final site inspections within three months of completion of works for the following maritime heritage sites: • Balls Head Coal Loader wharf • (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour) • (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour) • BP site, Berrys Bay	Not applicable

REMM No.	Condition Requirements	Document Reference
	e) Requirements for any mitigation recovery or archaeological excavations.	
NAH17	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
NAH18	Archival recording of the following maritime heritage sites will be carried out prior to works commencing in order to mitigate against predicted or potential impacts, and to establish a baseline against which to measure any changes to these sites due to works at: a) (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour Balls) b) (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour) c) (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour) d) BP site, Berrys Bay e) Slipway No. 1, former Woodleys Shipyard, Berrys Bay. (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour) All archival recordings are to be prepared consistently with the current NSW Heritage Council endorsed standards and guidelines.	Not applicable
NAH19	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
NAH20	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
NAH21	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
NAH22	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
NAH23	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
NAH24	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
NAH25	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
AH1	Deleted by Modification 1 – Wicks Road Construction Site	
AH2	The following process will be carried out to confirm where vibration monitoring at terrestrial AHIMS sites will be required: a) Terrestrial Aboriginal site condition surveys will be completed using photogrammetry and 3D-capture techniques to determine which AHIMS sites are considered to be structurally unsound b) Where this determination cannot be made, the AHIMS site will be considered to be structurally unsound c) A screening of vibration intensive activities within 50 metres of structurally unsound sites will be carried out to identify activities that have the potential to exceed vibration levels of 2.5 millimetres per second	Refer to ACHMP (Appendix H)

REMM No.	Condition Requirements	Document Reference
	d) Sites identified as being both structurally unsound and having potential for exceedance in vibration levels of 2.5 millimetres per second will be identified as requiring vibration monitoring. Applicable for all registered AHIMS sites located within 50 metres of the project construction footprint	
AH3	Vibration monitoring will be carried out at AHIMS sites that have been identified as requiring monitoring in accordance with the process outlined in mitigation measure AH2. Where possible, works will be conducted in a manner to minimise vibration levels, to less than 2.5 millimetres per second at all structurally unsound AHIMS sites. Applicable for All registered AHIMS sites subject to vibration intensive activities determined to be structurally unsound (see AH2)	Refer to ACHMP (Appendix H)
AH4	If vibration monitoring identifies that vibration levels exceed 2.5 millimetres per second at AHIMS sites that have been identified as requiring monitoring, a site visit will be organised with a representative from Metro LALC to record any changes to the integrity of the site that may have resulted from construction vibration, and updated site cards must be prepared accordingly. Condition surveys may include further photogrammetry and 3D-capture techniques. Applicable for All registered AHIMS sites subject to vibration intensive activities determined to be structurally unsound (see AH2)	Refer to ACHMP (Appendix H)
AH5	If at any time during construction of the project, any items of potential Aboriginal archaeological or cultural heritage conservation significance or human remains are discovered they will be managed in accordance with the Standard Management Procedure: Unexpected Heritage Items (Roads and Maritime Services, 2015e).	Refer to ACHMP (Appendix H)
AH6	Cultural and historic heritage awareness training will be carried out for personnel engaged in work that may impact heritage items before commencing works for the project.	Refer to ACHMP (Appendix H)
AH7	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
AH8	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
AH9	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
AH10	Transport for NSW will consult with the landowners of the private property where the Shed Cave (45-6-2672) AHIMS site is located. Subject to private landowner consent and access, mitigation measures AH2, AH3 and AH4 will apply to the AHIMS site Shed Cave (45-6-2672).	Refer to ACHMP (Appendix H)
SG1	Detailed predictive settlement models will be developed for areas of concern to guide tunnel design and construction methodology, including the selection of options to minimise settlement where required.	Section 5.5
SG2	The viability of domestic bores GW109209, GW107764 and GW108991 will be confirmed prior to construction. If drawdown at the bores exceeds two metres (in accordance with the Aquifer Interference Policy), measures will be taken to 'make good' the impact by restoring the water supply to pre development levels. The measures taken will be dependent upon the location of the impacted bores and will be determined in consultation with the	Refer to GWMP (Appendix F)

REMM No.	Condition Requirements	Document Reference
	affected licence holder but could include, deepening the bore, providing a new bore or providing an alternative water supply.	
SG3	An Independent Property Impact Assessment Panel, comprising geotechnical and engineering experts, will be established prior to the commencement of works to independently verify building condition survey reports, resolve any property damage disputes and establish ongoing settlement and vibration monitoring requirements.	NVMP (CEMP Appendix D) & GWMP (CEMP Appendix F)
SG4	Pre-construction building/structure condition surveys will be offered and prepared for properties (and heritage assets) within the zone of influence of tunnel settlement (for example within the 5 millimetre predicted surface settlement contour and within 50 metres of surface works) and within the minimum working distances for cosmetic and structural damage due to vibration. The surveys will be carried out by a suitably qualified person prior to the commencement of the tunnelling and vibration-intensive activities in the vicinity with the potential to affect the building/structure. Within three (3) months of the completion of construction activities that have the potential to impact on the subject surface/subsurface structure, all property owners of buildings for which a preconstruction building condition survey was carried out will be offered a second building condition survey. Where an offer is accepted, postconstruction building condition surveys will be carried out by a suitably qualified person. The results of the surveys will be documented in a post-construction building condition survey report for each building surveyed. Copies of building condition survey reports will be provided to the owners of the buildings surveyed within one (1) month of the survey being completed. Any property damage caused by the project will be rectified.	Refer to NVMP (Appendix D) GWMP (Appendix F) & NAHMP (Appendix G)
SG5	Erosion and sediment measures will be implemented at all work sites in accordance with the principles and requirements in Managing Urban Stormwater – Soils and Construction, Volume 1 (Landcom, 2004) and Volume 2D (NSW Department of Environment and Climate Change, 2008), commonly referred to as the 'Blue Book'.	Refer to SSWMP (Appendix E)
SG6	Potentially contaminated areas directly affected by the project will be investigated and managed in accordance with the requirements of guidance endorsed under section 105 of the Contaminated Land Management Act 2008. This includes, but is not limited to, further investigations in potential areas of environment interest in the project footprint, including: • (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour) • (Deleted by Modification 2 - TBM solution of crossing Sydney Harbour) • Balls Head peninsula • Waverton Park • Warringah Freeway (from North Sydney to Cammeray) • WFU10 (Wicks Road construction support site). Subject to the outcomes of the investigations, a Remediation Action Plan will be implemented in the event that site remediation is warranted	Refer to SSWMP (Appendix E)

REMM No.	Condition Requirements	Document Reference
	The Remediation Action Plan will be prepared and implemented in accordance with Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land (Department of Urban Affairs and Planning and EPA, 1998). An independent NSW EPA Accredited site Auditor will be engaged where contamination is complex to review applicable contamination reports and evaluate the suitability of sites for a specified use as part of the project.	
SG7	Any soil/fill materials surplus to construction will be classified in accordance with the NSW EPA (2014a) Waste Classification Guidelines.	Refer to SSWMP (Appendix E) & WRMP (Appendix J)
SG8	Asbestos handling and management will be carried out in accordance with relevant legislation, codes of practice and Australian standards.	Refer to WRMP (Appendix J) & CLMP
SG9	A hazardous materials assessment will be carried out prior to and during the demolition of buildings. Demolition works will be carried out in accordance with the relevant Australian Standards and relevant NSW WorkCover Codes of Practice, including the NSW Work Health and Safety Regulation 2011.	Refer to WRMP (Appendix J)
SG10	The Construction Waste and Resource Management Plan for the project will include procedures for handling and storing potentially contaminated substances.	Refer to WRMP (Appendix J)
SG11	The discovery of previously unidentified contaminated material will be managed in accordance with an unexpected contaminated lands discovery procedure, as outlined in the Guideline for the Management of Contamination (Roads and Maritime, 2013a).	Refer to SSWMP (Appendix E) & CLMP
SG12	Prior to ground disturbance in high risk acid sulfate areas at Birchgrove Park, Berrys Bay and Whites Creek, testing will be carried out to determine the presence of acid sulfate soils. If acid sulfate soils are encountered, they will be managed in accordance with the Acid Sulfate Soil Manual (Acid Sulfate Soil Management Advisory Committee, 1998).	Refer to SSWMP (Appendix E)
SG13	Ground gas investigations will be carried out in Waverton Park to assess for the potential presence of landfill generated gas which could impact on the construction and/or operation of the project. Ground gas investigations will be carried out in accordance (where applicable) with the Guideline for the Assessment and Management of Sites Impacted by Hazardous Ground Gases (NSW EPA, 2012).	Refer to SSWMP (Appendix E) & CLMP
SG14	Where groundwater inflows exceed 1L/sec/km during construction, feasible and reasonable measures to manage inflow will be applied.	Refer to GWMP (Appendix F)
SG15	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
SG16	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
SG17	Outcomes of updated groundwater modelling will identify any requirements for further groundwater monitoring, and management of groundwater drawdown and associated impacts.	Refer to GWMP (Appendix F)

REMM No.	Condition Requirements	Document Reference
SG18	As more information becomes available through ongoing groundwater monitoring, groundwater modelling will be updated. Construction and operational inflow predictions will be updated prior to construction, and operational inflow and impact predictions will be updated at the end of the construction period.	Refer to GWMP (Appendix F)
SG19	Additional groundwater baseline monitoring will be carried out during the pre-construction period and will be considered in the development of the groundwater quality monitoring program described in management measure SG20	Refer to GWMP (Appendix F)
SG20	A groundwater quality monitoring program will be developed and implemented, taking into consideration the location of areas subject to medium and high risk of groundwater contamination during construction and operation. Where relevant, modelling/mass balance analysis will be carried out to assess potential impacts on beneficial aquifer use and the likely quality of groundwater inflows. The groundwater monitoring program will be developed in consultation with the Department of Planning and Environment (Water).	Refer to GWMP (Appendix F)
SG21	If the groundwater quality monitoring and associated analysis identifies potential impacts to beneficial aquifer use from the migration of contaminated groundwater, or the quality of groundwater tunnel inflows, feasible and reasonable management measures will be identified and implemented.	Refer to GWMP (Appendix F)
SG22	As more information becomes available through ongoing groundwater monitoring, groundwater modelling will be updated to refine the predictions documented in Appendix N (Technical working paper: Groundwater). Inflow predictions will be updated during further design development and operational inflow and impacts predictions will be updated at the end of the construction period. If refined predictions indicate that groundwater inflows and water table drawdown will be greater than the impacts documented in Appendix N (Technical working paper: Groundwater), feasible and reasonable measures will be implemented.	Refer to GWMP (Appendix F)
SG23	Emergency Spill procedures will be developed to avoid and manage accidental spillages of fuels, chemicals, and fluids to minimise the risk of human health impacts and contamination of groundwater.	Refer to SSWMP (Appendix E)
WQ1	Erosion and sediment measures will be implemented at all work sites and surface road upgrades in accordance with the principles and requirements in Managing Urban Stormwater – Soils and Construction, Volume 1 (Landcom, 2004), Managing Urban Stormwater: Volume 2D Main Road Construction (NSW Department of Environment and Climate Change, 2008) and relevant guidelines, procedures and specifications of Transport for NSW. A soil conservation specialist will be engaged by both Transport for NSW and the Contractor for the duration of construction of the project to provide advice regarding erosion and sediment control including review of Erosion and Sediment Control Plans.	Refer to SSWMP (Appendix E)
WQ2	Emergency spill procedures will be developed to avoid and manage accidental spillages of fuels, chemicals or fluids during construction.	Refer to SSWMP (Appendix E)

REMM No.	Condition Requirements	Document Reference
WQ3	Discharges from wastewater treatment plants during the construction phase will be required to meet the following discharge criteria: • The relevant physical and chemical stressors set out in of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ, 2000), and • The ANZG (2018) 90 per cent species protection levels for toxicants generally, with the exception of those toxicants known to bioaccumulate, which will be treated to meet the ANZG (2018) 95 per cent species protection levels, and • The draft ANZG default guideline values for iron (in fresh and marine water) and zinc (in marine water) which are likely to be finalised in October 2020.	Refer to SSWMP (Appendix E) & GWMP (Appendix F)
WQ4	A freshwater quality monitoring program for the construction of the project will be developed and implemented, with consideration of the freshwater monitoring being carried out for the M4-M5 Link and Beaches Link and Gore Hill Freeway Connection projects. The program will be developed in consultation with the Environment Protection Authority, Department of Planning, Industry and Environment (Regions, Agriculture and Resources), Department of Planning, Industry and Environment (Water), and relevant councils. Sampling locations and monitoring methodology will be in accordance with the Guideline for Construction Water Quality Monitoring (RTA 2003b) and ANZG (2018). If exceedances of the criteria established under the freshwater monitoring program are detected, a management response will be triggered. This response will be documented within the construction freshwater quality monitoring program.	Refer to SSWMP (Appendix E)
WQ5	Further design development will confirm the local stormwater system capacity to receive construction wastewater treatment plant inflows. In the event that there is a stormwater infrastructure capacity issue with existing infrastructure, mitigation measures such as storage detention to control water outflow during wet weather events will be implemented within the construction support site.	Section 5.5
WQ6	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
WQ7	The potential for scour and erosion of watercourse bed and banks will be considered during the design of new and augmented discharge outlets. Construction work activities within or next to the watercourses and drainage lines will be minimised as much as reasonably practical to minimise disturbance of sediments in or near the waterway.	Refer to SSWMP (Appendix E)
WQ8	Subject to a timely agreement with Cammeray Golf Club and North Sydney Council regarding a suitable alternate location, Transport for NSW will install a new permanent replacement storage dam (and associated infrastructure) within the golf course prior to decommissioning of the existing dam, in order to maintain ongoing operational functionality of the water harvesting scheme.	Transport for NSW requirement

REMM No.	Condition Requirements	Document Reference
	If a suitable location cannot be agreed prior to the commencement of construction, Transport for NSW will come to an interim arrangement with Cammeray Golf Club and North Sydney Council regarding compensation for additional water usage, for the period until the replacement dam is operational.	
WQ9	The permanent wastewater treatment plant at Rozelle will be designed to treat wastewater generated from tunnel groundwater ingress and rainfall runoff in tunnel portals and achieve the following discharge criteria: • The relevant physical and chemical stressors set out in of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ, 2000), and • The ANZG (2018) 95 per cent species protection levels for toxicants generally, with the exception of those toxicants known to bioaccumulate, which would be treated to meet the ANZG (2018) 99 per cent species protection levels, and • The draft ANZG default guideline values for iron (in fresh and marine water) and zinc (in marine water) which are likely to be finalised in October 2020.	Refer to SSWMP (Appendix E)
WQ10	The capacity for the local stormwater system to receive operational wastewater treatment plant inflows will be confirmed during further design development. In the event that there is a stormwater infrastructure capacity issue with existing infrastructure, mitigation measures such as storage detention to control water outflow during wet weather events will be implemented at the Rozelle Rail Yards.	Section 5.5
WQ11	Operational monitoring will be carried out in line with the Guideline for Construction Phase Water Quality Monitoring (RTA 2003b) to: a) Assess and manage impacts on the receiving waters as the sites stabilise b) Assist in deciding when the site has stabilised c) Identify water quality conditions after development d) Identify appropriate measures to improve water quality performance. As a minimum, monthly monitoring will be carried out for the first year of operation. Should any of the discharge criteria be exceeded, a management response will be triggered. The management response will be documented within the operational water quality monitoring program.	Not Applicable
WQ12	Opportunities for Water Sensitive Urban Design (WSUD) will be considered during the development of the design for the stormwater management system for the new and upgraded road infrastructure, and also during development of the urban design and landscape plans. Identified WSUD features will be implemented where feasible and reasonable.	Not Applicable.
WQ13	If sediment basins are required a discharge impact assessment, commensurate with the potential risk and consistent with the National Water Quality Guidelines (ANZG (2018)) and Managing Urban Stormwater – Soils and Construction, Volume 1 (Landcom, 2004) will be prepared to inform the discharge criteria.	Refer to SSWMP (Appendix E)

REMM No.	Condition Requirements	Document Reference
F1	Where flood levels in the 1% AEP event are predicted to increase at any residential, commercial and/or industrial buildings as a result of operation of the project, a floor level survey will be carried out. If the survey indicates existing buildings would experience above floor inundation during a 1% AEP event as a result of the project, further refinements will be made (as required) to the design of permanent project components to minimise the potential for impacts.	Section 5.5
F2	Where feasible and reasonable, the hydraulic capacity of the existing transverse drainage of the Warringah Freeway will be designed to comply with relevant guidelines and standards.	Not Applicable
F3	Entries to tunnel excavations, including cut and cover sections of tunnel, will be protected against frequent flooding by locating openings outside flood prone areas, and/or the provision of local bunding and flood protection barriers	Section 5.5
F4	The flood standard adopted at each tunnel entry during construction will be developed taking into consideration the duration of construction, the magnitude of inflows and the potential risks to personal safety and the project works.	Section 5.5
F5	Spoil stockpiles will be located in areas which are not subject to frequent inundation by floodwater, ideally outside the 1% AEP flood extent. The exact level of flood risk accepted at stockpile sites will depend on the duration of stockpiling operations, the type of material stored, the nature of the receiving drainage lines and also the extent to which that would impact flooding conditions in adjacent development.	Refer to SSWMP (Appendix E)
F6	Site facilities will be located outside high flood hazard areas based on a 1% AEP flood.	Refer to SSWMP (Appendix E)
F7	Flood emergency management measures for construction and operation of the project will be incorporated into relevant environmental and/or safety management documentation.	Refer to SSWMP (Appendix E)
F8	Detailed construction planning will consider flood risk at construction sites and construction support sites. This will include: • A review of site layout and staging of construction activities to avoid or minimise obstruction of overland flow paths and limit the extent of flow diversion required • Identification of measures to not worsen flood impacts on the community and on other property and infrastructure during construction up to and including the 1% AEP flood event where reasonable and feasible WHT/WFU • Measures to mitigate alterations to local runoff conditions due to construction activities.	Refer to SSWMP (Appendix E)
F9	Impact of the project on flood behaviour during operation will be confirmed during further project development. This will include the consideration of future climate change and a partial blockage of the local stormwater drainage system.	Refer to SSWMP (Appendix E)

REMM No.	Condition Requirements	Document Reference
F10	Stormwater from the southern upstream catchment of WHT13 will be piped under the proposed construction support site and discharged into the existing open drainage line. A diversion drain(s) would be incorporated into the Emu Plains construction support site (WHT13) layout to divert overland flows around site buildings and other sensitive facilities. The drains would also convey sufficient flows to minimise or avoid flood level increase in the upstream catchments.	Refer to SSWMP (Appendix E)
F11	A basin(s) would be provided at the Emu Plains construction support site (WHT13) to compensate for the flood storage loss due to filling the existing basin(s) and the additional paved area. The basin(s) size would be determined by keeping the flow rate from the Emu Plains construction support site (WHT13) to the adjacent land unchanged.	Refer to SSWMP (Appendix E)
F12	A Flood Evacuation Management Plan will be prepared for WHT13 to ensure all workers are evacuated prior to any flood emergency	Refer to SSWMP (Appendix E)
B1	Vegetation removal including the clearing of native vegetation and fauna habitat will be further minimised, where feasible and reasonable.	Refer to FFMP (Appendix C)
B2	Vegetation removal will be carried out in accordance with Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011a).	Refer to FFMP (Appendix C)
B3	The unexpected species find procedure included in Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011b) will be followed if threatened ecological communities, flora or fauna species, not assessed in the biodiversity assessment, are identified in the construction footprint.	Refer to FFMP (Appendix C)
B4	Vegetation will be re-established within the project footprint, where feasible, in accordance with Guide 3: Re-establishment of native vegetation of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011c). Where replacement trees cannot be accommodated within the project footprint, locations outside the project footprint will be identified for compensatory plantings. Trees removed by the project will be replaced at a ratio equal to or greater than 1:1. The replacement trees will consist of local native provenance species from the vegetation community that once occurred in the locality (rather than plant exotic or non-local native trees) where available and subject to the urban design and landscape plan.	Refer to FFMP (Appendix C)
B5	Pre-clearing surveys for threatened flora species will be carried out in accordance with Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA, 2011d)	Refer to FFMP (Appendix C)
B6	Carry out inspections of Large Bentwing-bat roosting sites in the WHT surrounding locality (eg concrete box culverts, jetties) prior to construction, to determine the roosting capacity of each site at times roosting numbers are expected to be high.	Refer to FFMP (Appendix C)
B7	Deleted by Modification 1 – Wicks Road Construction Site	

REMM No.	Condition Requirements	Document Reference
B8	Monitoring of Large Bentwing-bats in the Coal Loader tunnel prior to potential impact and during tunnelling beneath the Coal Loader (in the months of March to September) will be carried out. The frequency and methods of the monitoring will be provided in an adaptive monitoring program developed prior to impact and in consultation with the Department of Planning and Environment (Environment, Energy and Science and the Regions, Industry, Agriculture and Resources divisions), North Sydney Council and an appropriately qualified expert in microbat biology and behaviour.	Refer to FFMP (Appendix C)
B9	Prior to the excavation of the mainline tunnel within close proximity to the Coal loader roosting site, adaptive management measures to minimise impacts on the Large Bent-winged bat will be developed in consultation with Department of Planning and Environment (Environment, Energy and Science and the Regions, Industry, Agriculture and Resources divisions), North Sydney Council and an appropriately qualified expert in microbat biology and behaviour. These measures including the timing of their implementation will be detailed in an adaptive monitoring program.	Refer to FFMP (Appendix C)
B10	Fauna will be managed in accordance with Guide 9: Fauna handling of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA, 2011e).	Refer to FFMP (Appendix C)
B11	Pre-clearing surveys will be carried out in accordance with Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011d).	Refer to FFMP (Appendix C)
B12	Pre-clearing surveys for microbat roosts will be carried out by a suitably qualified person on all buildings or structures with potential roosting habitat that are to be demolished or refurbished**.** If microbats are identified roosting in these structures, individuals will be excluded from this roosting habitat.	Refer to FFMP (Appendix C) Applicable for stage 3C only
B13	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B14	Weed species will be managed in accordance with Guide 6: Weed management of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011f).	Refer to FFMP (Appendix C)
B15	Pathogens will be managed in accordance with Guide 2: Exclusion zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011g).	Refer to FFMP (Appendix C)
B16	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B17	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B18	The velocity of wastewater treatment plant discharge will be minimised to avoid scour impacts on the marine environment.	Refer to FFMP (Appendix C)
B19	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B20	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	

REMM No.	Condition Requirements	Document Reference
B21	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B22	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B23	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B24	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B25	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B26	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B27	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B28	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B29	A dewatering plan will be developed prior to dewatering of the stormwater harvesting dam at Cammeray Golf Course. The dewatering plan will include native aquatic fauna relocation requirements.	Not applicable
B30	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	
B31	Exclusion zones will be established at WFU10 to clearly define the limits of the works as to not further encroach on vegetation / potential habitat to be retained, including the area of PCT1845 located immediately north of the construction boundary, drainage area, including surrounding She oak trees.	Not applicable. REMM applies to WFU only.
LP1	Land acquisition for the project will be carried out in accordance with the Land Acquisition (Just Terms Compensation) Act 1991 (NSW), the Roads and Maritime Services Land Acquisition Information Guide (Roads and Maritime, 2014a) and Fact sheet: Property acquisition of subsurface lands (Roads and Maritime, 2015) and in accordance with the land acquisition reforms announced by the NSW Government in 2016. Transport for NSW will appoint a Personal Manager - Acquisition to help land owners and residents who may be affected by acquisition for the project. The Personal Manager - Acquisition will be in regular contact with these individuals to provide updates on the project and respond to questions and queries. Should acquisition for the project be confirmed for a particular property, the Personal Manager - Acquisition will work with the affected land owners and residents to offer assistance and support throughout the acquisition and relocation process.	Not applicable
LP2	Land subject to temporary use, including areas of public open space, will be rehabilitated as soon as practicable to an appropriate land use, taking into consideration the location, land use characteristics, area and adjacent land uses. This will be carried out in consultation with the relevant council and/or the landowner.	Section 5.20
LP3	Where impacts to private property access is unavoidable during construction, property owners will be consulted in advance to develop appropriate alternative access arrangements.	Refer to TTAMP (Appendix B)
LP4	Deleted by Modification 2 - TBM solution of crossing Sydney Harbour	

REMM No.	Condition Requirements	Document Reference
LP5	Transport for NSW will consult with existing lease holders regarding any changes to lease arrangements.	Transport for NSW responsibility
LP6	Residual land remaining following construction of the project will be confirmed to identify appropriate land use, taking into consideration the location, land use characteristics, area and adjacent land uses.	Section 5.20
LP7	Transport for NSW will continue to work with Cammeray Golf Club with a view to address the impacts of the project and maintain the long term viability of Cammeray Golf Course.	Transport for NSW responsibility
LP8	Transport for NSW will assist Inner West Council, North Sydney Council and the Department of Planning and Environment (as appropriate) in determining relevant land use considerations applicable to future development in the immediate vicinity of ventilation outlets for inclusion in local environmental plans or development control plans, where required, to manage interactions between the project and future development. This may include procedures for identifying the requirement for consultation with Transport for NSW.	Transport for NSW responsibility
LP9	Transport for NSW will improve access to the beach area next to the former quarantine station and work with North Sydney Council to provide boat and kayak storage options at that location as part of the landscaping design for Berrys Bay.	Transport for NSW responsibility
SE1	Where feasible and reasonable, the extent of permanent impact on public open space areas (for example, ANZAC Park, St Leonards Park, Cammeray Golf Course) will be minimised in further design development.	Section 5.5
SE2	Parks, open space and sport and recreation areas impacted by construction and not required for permanent infrastructure will be reinstated and rehabilitated.	Section 5.20
SE3	Ongoing engagement will be carried out with managers of social infrastructure located near to surface construction works/construction support sites and sensitive social infrastructure above the tunnel alignment (for example, schools, places of worship, aged care, child care, health and medical facilities) about the timing and duration of construction works and management of potential impacts.	CCS
SE4	Consultation for the project will be carried out in accordance with the Community Consultation Framework provided as Appendix E of the environmental impact statement.	CCS
BU1	Where businesses are affected by property acquisition, or lease cessation, the acquisition and compensation process will be implemented in line with the Determination of compensation following the acquisition of a business guideline. Compensation for a business conducted on land that is acquired will be determined in accordance with the Land Acquisition (Just Terms Compensation) Act 1991 (NSW) as relevant.	Transport for NSW responsibility
BU2	Specific consultation will be carried out with businesses potentially impacted during construction. Consultation will aim to identify specific potential construction impacts for individual businesses.	CCS
BU3	Based on consultation with businesses, specific feasible and reasonable measures to maintain business access, visibility and parking and address other potential impacts as they arise through the construction process will be	CCS

REMM No.	Condition Requirements	Document Reference
	identified and implemented. A phone hotline that enables businesses to find out about the project or register any issues will be maintained.	
V1	Construction support sites will be developed to minimise visual impacts for adjacent receivers where feasible and reasonable.	Section 5.20
V2	Storage areas and associated works will be located in cleared and otherwise disturbed areas away from residential areas where feasible and reasonable.	Section 5.20
V3	Site hoardings will be in neutral colours and designs in proximity to open space to help blend them into the surrounding environment.	Section 5.20
V4	Site hoarding and perimeter site areas will be maintained regularly to include the prompt removal of graffiti.	Section 5.20
V5	Site lighting will be designed to minimise glare issues and light spillage into adjoining properties and be generally consistent with the requirements of Australian Standards and Guidelines 4282 – ~~1997~~ 2019 Control of the obtrusive effects of outdoor lighting.	Section 5.19
V6	Hoardings and temporary noise walls will be erected as early as possible within the site establishment phase to provide visual screening.	Section 5.19
V7	High quality fencing suitable for parks and public spaces will be used where construction support sites are located in close proximity to sensitive residential receivers such as residents and users of recreational space.	Section 5.19
V8	Existing trees adjacent to the works will be retained and protected where possible to screen construction support sites, minimising clearing where possible.	Section 5.19
V9	Where possible, trees will be trimmed rather than removed. Works will be carried out by a qualified arborist.	Section 5.19
V10	All areas disturbed by construction and not required for operation of the project will be restored to existing condition or in accordance with the urban design and landscape plan where applicable (environmental management measure V12).	Section 5.19 Section 5.20
V11	Early planting works will be considered to provide a screening buffer that has time to mature before the project is fully operational.	Section 5.19
V12	An urban design and landscape plan will be prepared during further design development and implemented in line with the strategic urban design framework for the project. The urban design and landscape plan will detail built and landscape features to be implemented during construction and rehabilitation of disturbed areas during construction of the project. The urban design and landscape plan will be made available to the public for feedback.	Section 5.19 Section 5.20

REMM No.	Condition Requirements	Document Reference
HR1	Dangerous goods and hazardous materials will be stored in accordance with supplier's instructions and relevant legislation, Australian Standards, and applicable guidelines and may include bulk storage tanks, chemical storage cabinets/containers or impervious bunds	Refer to SSWMP (Appendix E)
HR2	Dangerous goods and hazardous substances will be transported in accordance with relevant legislation and codes, including the Dangerous Goods (Road and Rail Transport) Act 2008, Road and Rail Transport (Dangerous Goods) (Road) Regulation 1998 and the Australian Code for the Transport of Dangerous Goods by Road and Rail (National Transport Commission, 2007).	Refer to TTAMP (Appendix B)
HR3	Adequate access and egress for fire fighting vehicles and staff will be provided at the Wicks Road construction support site (WFU10). Access roads should have a minimum width of four metres to allow passage of fire fighting vehicles.	Not applicable
HR4	Adequate setbacks from bush fire prone vegetation to allow fire fighting vehicle access will be provided for the Wicks Road construction support site (WFU10)	Not applicable
HR5	First response capabilities, including fire extinguishers, water carts and hoses, will be assessed and provided at the Wicks Road construction support site (WFU10) where needed.	Not applicable
HR6	The fire and safety systems and measures adopted for the project will be equivalent to or exceed the fire safety measures recommended by NFPA502 (American), PIARC (European), AS4825 and AS3959-2009 (Australian) and relevant Transport for NSW standards.	Refer to WRMP (Appendix J)
HR7	The transport of dangerous goods and hazardous substances will be prohibited through the mainline tunnels and on and off-ramp tunnels.	Not applicable
HR8	The response to incidents within the motorway will be managed in accordance with the memorandum of understanding between Transport for NSW and the NSW Police Service, NSW Rural Fire Service, NSW Fire Brigade and other emergency services.	Not applicable
HR9	The ventilation outlet and motorway facilities at Rozelle Interchange and Warringah Freeway will be operated in accordance with any conditions of approval from the Secretary of the Commonwealth Department of Infrastructure, Transport, Regional Development and Communications to manage penetration of the OLS and PANS-OPS surfaces.	Not applicable
WM1	Construction materials will be sourced in accordance with the project's Sustainability Framework and with a preference for Australian materials and prefabricated products with low embodied energy, where feasible and reasonable.	Refer to WRMP (Appendix J) Sustainability Management Plan
WM2	The resource management hierarchy principles established under the Waste Avoidance and Recovery Act 2001 of avoid/reduce/reuse/ recycle/dispose will be applied.	Refer to WRMP (Appendix J)

REMM No.	Condition Requirements	Document Reference
WM3	Wastes for land disposal will be classified in accordance with the NSW Environment Protection Authority Waste Classification Guidelines: Part 1 Classifying Waste.	Refer to WRMP (Appendix J)
WM4	Wastes will be appropriately transported, stored and handled according to their waste classification and in a manner than prevents pollution of the surrounding environment.	Refer to WRMP (Appendix J)
WM5	Opportunities for wastewater reuse and recycling, including recirculating water during tunnel excavation to use for dust suppression and offsite reuse, will be investigated and implemented where feasible and reasonable.	Refer to WRMP (Appendix J)
WM6	The project will be operated in accordance with the relevant aims of the project's Sustainability Framework to optimise resource efficiency and waste management.	Not applicable
WM7	Waste will be managed and disposed of in accordance with relevant applicable legislation, policies and guidelines, including the Waste Avoidance and Resource Recovery Act 2001 and the NSW Waste Avoidance and Resource Recovery Strategy 2014–21 (NSW EPA, 2014).	Refer to WRMP (Appendix J)
WM8	Opportunities to reuse treated groundwater during project operation will be considered where feasible and reasonable.	Refer to WRMP (Appendix J) & GWMP (Appendix G)
SU1	Project sustainability objectives and targets will be finalised during further design development, informed by the requirements of the project planning approval.	Sustainability Management Plan
SU2	Activities to implement the sustainability framework, including requirements from the Infrastructure Sustainability rating scheme, will be implemented through a Sustainability Management Plan. The management plan will detail measures to meet the sustainability objectives and targets as well as achieving 'Design' and 'As Built' ratings of Excellent under the Infrastructure Sustainability Council of Australia rating scheme (Version 1.2).	Sustainability Management Plan
CC1	The following actions will be carried out during further design development to ensure climate change is adequately addressed: a) Flood modelling will continue to use sea level rise projections and rainfall projections b) The extent of scour protection will be refined c) Sensitivity testing for climate change will be carried out in the detailed design of drainage channels and culverts. Increased capacity will be provided where feasible and reasonable d) Any specific property impacts from flooding will be addressed where feasible and reasonable.	Sustainability Management Plan
GHG1	Greenhouse gas emissions will be managed and minimised as part of the Sustainability Management Plan which will be implemented to assist in achieving 'Design' and 'As Built' ratings of Excellent under the Infrastructure Sustainability Council of Australia rating scheme.	Sustainability Management Plan
GHG2	Energy efficiency will be considered during further design development with energy efficient systems installed where reasonable and practicable.	Sustainability Management Plan

REMM No.	Condition Requirements	Document Reference
CI1	Considered and tailored multi-party engagement and cooperation will be established prior to construction to ensure all contributors to impacts are working together to minimise adverse impacts or enhance benefits of multiple projects occurring concurrently or consecutively. Haulage routes and road occupancy will be coordinated with other major transport projects via the Transport Coordination within Transport for NSW.	CCS
CI2	Multi-party engagement and cooperation will be established prior to construction to coordinate with the following projects to manage fatigue impacts where possible: a) M4-M5 Link b) Beaches Link and Gore Hill Freeway Connection c) Sydney Metro City & Southwest.	CCS
CI3	Communication strategies for the project will be managed consistently across the NSW Government transport portfolio and in accordance with the Community Consultation Framework for the project, particularly with the Beaches Link and Gore Hill Freeway Connection project.	CCS
CI4	Cumulative complaints fatigue will be managed as outlined in Chapter 7 (Stakeholder and community engagement). Complaint management tools for the project are outlined in Appendix E (Community consultation framework).	CCS

Appendix A2

Aspects and Impacts

CEMP – Appendix A2

Western Harbour Tunnel Package 2 Project

SSI 8863

Environmental Aspects and Impacts Register

This Environmental Aspects and Impacts Register has been prepared by ACCIONA, to supplement the Environmental Risk Analysis conducted as part of the Environmental Impact Statement (EIS). For more detail on the EIS and Project assessment and approval process, please refer to the Construction Environmental Management Plan.

The identification of potential environmental impacts that could eventuate during construction of the Project is central to the selection of appropriate environmental safeguards.

The risk management process involved an assessment of all specific project activities/aspects in or near environmentally sensitive areas and resulted in the development of a list of environmental risks (effects and impacts) and a corresponding risk mitigation strategy and risk ranking. Each environmental risk was categorised, based on the following:

- The environmental aspect
- Relative scale of the potential impact
- Type of potential impact
- Likelihood of occurrence.

The identification of risks included a review of the proposed works, the CoA, REMM, and review of the environmental risks identified by the EA and subsequent Submissions Report.

A risk consideration workshop, highlighting the construction processes and locations and reviewing the potential risk resulting from Project construction, based on risks highlighted in the EIS, updated construction methodologies and past experience, was held on 18 January 2023 and included attendees from:

- Transport for New South Wales,
- North Sydney Council,
- Inner West Council,
- The Acoustic Advisor, and
- The Environmental Representative.

Similarly, a Project environmental risk assessment workshop focusing on WHT Stage 3C activities was held on 28 August 2023 involving:

- TfNSW,
- North Sydney Council,
- Inner West Council, and
- The Environmental Representative.

Following this, the risk assessment process has been implemented as described below.

Risk Assessment Process

The following tables outline the risk assessment process using 3 steps to identify the appropriate management measures required.

- Table 1 is used to determine the likelihood that the aspect will have an impact on the environment.
- Table 2 is used to determine the potential consequence rating of the risk identified

From these two tables, a risk rating can then be assigned by using Table 3 to determine how severe the potential impact may be and what level of management each type of risk will require

Table 1: Likelihood criteria

Score	Description		Percentage	Expected frequency
5	**Almost Certain**	Common / Frequent Occurrence	Can be expected to occur 75% - 99%	More than 1 event per month
4	**Likely**	Is known to occur or “It has happened regularly”	Can quite commonly occur 50% - 75%	More than 1 event per year
3	**Possible**	Could occur or “I’ve heard of it happening”	May occasionally occur 25% - 50%	1 event per 1 to 10 years
2	**Unlikely**	Not likely to occur very often	May infrequently occur 10% - 25%	1 event per 10 to 100years
1	**Rare**	Conceivable but only in exceptional circumstances	May occur in exceptional circumstances 0% – 10%	Less than 1 event per100 years

Table 2: Consequence criteria

Consequence Rating	1 Negligible	2 Minor	3 Moderate	4 Major	5 Substantial
Safety and Health	First Aid Treatment (or No treatment)	Medical Treatment Injury	Lost Time Injury	Permanent Injury (Paraplegia, Amputation)	Fatality (Single or multiple)
Environment and Heritage	Small, contained localised impact / Low level repairable damage	Short lived, well contained environmental impact / Minor remedial action required	Medium term, contained impact / Significant remedial action required	Impacts extend off-site / external ecosystem. Considerable remediation required	Long Term irreversible damage / Long Term Remediation required
Plant Damage	Little or No Damage	Damage less than $15,000	Damage between $15,000 and $50,000	Damage between $50,000 and $100, 000	Damage greater than $100, 000
Reputation	Brief local negative media coverage.	Local negative media coverage. Site or project problem.	Regional/short negative media coverage. Loss of Client / project.	Sustained national negative media coverage. Loss of long term key client.	International negative media coverage. Loss of business from key sector.
Time	Delay / Business interruption <1% of program days	Delay / Business interruption between 1%-3% of program days	Delay / Business interruption between 4%-6% of program days	Delay / Business interruption between 7%-10% of program days	Delay / Business interruption >10% of program days
Cost	Additional cost to the business / project <1% revenue	Additional cost to the business / project between 1%-3% revenue	Additional cost to the business / project between 4%-6% of revenue	Additional cost to the business / project between 7%-10% of revenue	Additional cost to the business / project >10% of revenue

Table 3: Risk severity

	Consequence	Negligible	Minor	Moderate	Major	Substantial
Likelihood	**Rating**	**1**	**2**	**3**	**4**	**5**
Almost Certain	**5**	**5 (Low)**	**10 (Moderate)**	**18 (Very High)**	**23 (Extreme)**	**25 (Extreme)**
Likely	**4**	**4 (Low)**	**9 (Moderate)**	**17 (Very High)**	**20 (Very High)**	**24 (Extreme)**
Possible	**3**	**3 (Low)**	**8 (Moderate)**	**13 (High)**	**19 (Very High)**	**22 (Very High)**
Unlikely	**2**	**2 (Low)**	**7 (Low)**	**12 (High)**	**15 (High)**	**21 (Very High)**
Rare	**1**	**1 (Low)**	**6 (Low)**	**11 (Moderate)**	**14 (High)**	**16 (High)**

Environmental Risk Register

Issue	Construction activity/aspect	Potential Impact	Risk (prior to mitigation)	Indicative mitigation measures	Risk (following mitigation)	Management Documents / Training Required
Air Quality	• General earthworks • Vegetation clearing • Open excavation works • Spoil handling • Stockpiling • Vehicular movements on unsealed roads • Material haulage • Vehicle emissions • Handling of chemicals, waste and hazardous goods.	Complaints from neighbours, including loss of amenity, dust in living areas, swimming pools	Likelihood – 5 Consequence – 2 Risk – 10 (Moderate)	• Induct personnel on air quality issues and safeguards • Use water carts on unsealed surfaces and stockpiles • Utilise safe dust suppressants to reduce dust generation • Use street sweepers to reduce dust in areas of dust build up • Modify or cease operations during high winds • Installation of acoustic sheds/ cut and covers structure as early as possible • All trucks carrying dispersible material must be covered when on public roads • Vehicles, equipment, machinery must be designed, operated and maintained to control the emission of smoke, dust, odours and fumes • All disturbed areas stabilised, revegetated and/or landscaped as soon as practicable • Minimise tracked mud/dust on public roads with wheel wash or rumble grids • No burning or incineration of any material at any time • Air quality monitoring in accordance with Project Air Quality Monitoring Program. • Pesticide use will be in accordance with the *Pesticides Act 1999* • Selection of appropriate plant / equipment for use, and minimise idling • Minimise exhaust fumes – vehicle shut down procedures, maintenance, education of operators. • Underground safety equipment including gas monitoring and plant discharge limits to be undertaken in accordance with safety requirements • Scrubbers used as part of tunnel ventilation system to be regularly maintained and operated in accordance with standards and safety guidelines. • Investigate use of surface miner as a more efficient means of surface excavation (vs rock hammering) - where possible.	Likelihood – 3 Consequence – 1 Risk – 3 (Low)	Air Quality Management Sub Plan (AQMP) including the Air Quality Monitoring Program. Environmental Work Method Statements (EWMS) Soil and Surface Water Management Sub Plan (SSWMP) Community Consultation Strategy (CCS) / Complaints Procedure Project induction Environmental Protection License (EPL)
		Potential adverse health effects	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Degradation of air quality and other aspects of the natural environment	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Health risks to neighbours and members of the public from release of gases and/or smoke, or unexpected odour	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)		Likelihood – 1 Consequence – 2 Risk – 6 (Low)	
Biodiversity	• Clearing of native vegetation. • Tree / vegetation removal • Stockpile / haul road construction near vegetation. • General earthworks near vegetation. • Vehicular movements. • Open excavation works. • Bushfires	Loss of habitat for threatened species beyond minimum clearing footprint.	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)	• Induct personnel on biodiversity issues and mitigation measures. • Ensure vegetation clearing boundaries clearly marked, maintained and visible and are include in the Sensitive Area Maps. • Prior to disturbance, identify and fence all flora and fauna habitat areas required to be protected (in accordance with the pre-clearing inspection requirements) • Ensure protected areas are included in the Sensitive Area Maps. • Minimise clearing of all vegetation and undertake progressive revegetation. • Pre-clearing inspections by Project Ecologist to review weeds and other threatened species • Implement ongoing weed monitoring and management programs (in accordance with the Weed Management Protocol). • Disturbed areas will be monitored for effective soil stabilisation and restoration / rehabilitation. • Implement a staged clearing process and undertake fauna rescue during clearing as required. • Project Arborist to provide advice on habitat tree health and provide ongoing advice. • Undertake threatened species management as required under the FFMP • Undertake species monitoring as required • Maintain data on all removed trees, to inform replacement strategy • Implement the Fauna Relocation Procedure during dewatering from waterbodies/swales within the Emu Plains (WHT13) site as identified in the BDAR report. • Implement the Microbat Monitoring Program when tunnelling under the Balls Head Coal Loader	Likelihood – 2 Consequence – 2 Risk – 7 (Low)	Flora and Fauna Management Plan (FFMP) including: • Pre-clearing inspection requirements • Weed Management Protocol EWMS Project induction Safety Management Plan (re: procedures for hot works activities) Clearing and Grubbing Plan (refer to Specification G40) Tree Register Sensitive Area Maps (SAMs). Fauna Relocation Procedure Microbat Monitoring Program
		Weed /pathogen infestation	Likelihood – 5 Consequence – 2 Risk – 10 (Moderate)		Likelihood – 3 Consequence – 1 Risk – 3 (Low)	
		Potential longer-term impacts associated with increased habitat fragmentation.	Likelihood – 2 Consequence – 2 Risk – 7 (Low)		Likelihood – 1 Consequence – 2 Risk – 6 (Low)	
		Direct impact to flora or fauna during construction.	Likelihood – 2 Consequence – 2 Risk – 7 (Low)		Likelihood – 1 Consequence – 2 Risk – 6 (Low)	

Issue	Construction activity/aspect	Potential Impact	Risk (prior to mitigation)	Indicative mitigation measures	Risk (following mitigation)	Management Documents / Training Required
Aboriginal heritage	• Initial clearing and/or grubbing of vegetation. • Initial removal of topsoil. • Construction of site compounds and material or equipment stockpile areas. • Temporary access roads	Impact to undiscovered or undocumented heritage sites	Likelihood – 2 Consequence – 3 Risk – 12 (High)	• Induct personnel on heritage issues and mitigation measures. • For ancillary sites, identify and assess Aboriginal heritage items and predict potential impacts. • Implement unexpected find procedures as required. • Where sensitive items need to be protected on site or adjacent to the Project, these are to be included in the SAMs • Undertake an extensive Instrumentation and Monitoring (I&M) program to monitor for settlement • Undertaken vibration assessments prior to impact, and additional monitoring as required.	Likelihood – 1 Consequence – 2 Risk – 6 (Low)	Aboriginal Cultural Heritage Management Plan (ACHMP) Unexpected Heritage Finds Procedure Project induction SAMs Noise and Vibration Management Sub Plan (NVMP) and Monitoring Program I&M Program
		Finding / disturbing burials or human remains	Likelihood – 2 Consequence – 2 Risk – 7 (Low)		Likelihood – 1 Consequence – 2 Risk – 6 (Low)	
		Vibration or settlement damage during the construction period to identified sites.	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
Non Aboriginal heritage	• Initial clearing and/or grubbing of vegetation. • Initial removal of topsoil. • Construction of site compounds and spoil / mulch and / or equipment stockpile areas. • Temporary access roads during construction • Excavations and earthworks. • Pile driving causing vibration. • Use of other vibratory equipment such as rollers and roadheaders.	Impact to identified heritage items.	Likelihood – 3 Consequence – 3 Risk – 13 (High)	• Pre-construction surveys to assess potentially impacted non-Aboriginal heritage items. • Induct personnel on heritage issues and safeguards. • Delineate identified heritage items with protective fencing or flagging prior to disturbance. • Undertake archival recording as required. • Implement unexpected find procedures. • Undertaken landholder consultation as required, in locations of known items/artefact areas. • Undertaken vibration assessments prior to impact, and additional monitoring as required. • Where sensitive items need to be protected on site or adjacent to the Project, these are to be included in the SAMs • Undertake an extensive Instrumentation and Monitoring (I&M) program to monitor for settlement	Likelihood – 2 Consequence – 2 Risk – 7 (Low)	Non-Aboriginal Heritage Management Sub Plan (NAHMP) Noise and Vibration Management Plan (NVMP) and Monitoring Program Unexpected Heritage Finds Procedure Project induction SAMs I&M Program
		Vibration or settlement damage during the construction period to identified sites.	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Impact to undiscovered or undocumented heritage sites.	Likelihood – 3 Consequence – 3 Risk – 13 (High)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Change in visual integrity of heritage sites.	Likelihood – 2 Consequence – 2 Risk – 7 (Low)		Likelihood – 2 Consequence – 1 Risk – 2 (Low)	
Noise and vibration	• Regular out of hour works (OOHW) • Potentially noisy and vibration impact generating works including (but not limited to): o Site establishment. o Earthworks o Piling o Paving o Saw cutting o Tunnelling activities o Spoil transport, vehicle movements/deliveries on public roads o Operation of ancillary facilities	Noise impacts on sensitive receivers during construction.	Likelihood – 3 Consequence – 3 Risk – 13 (High)	• Consult with local communities and affected residents. • Adherence to working hours in NVMP unless otherwise approved. • Implement OOHW Permit process, including the OOHW Protocol. Where OOHW are unavoidable, program noisy works outside night-time periods. • Construction Noise and Vibration Impact Statements (CNVIS) to be prepared to determine impact, appropriate mitigation and consultation requirements • Respite periods for highly noise intensive works. • Construction equipment selected, operated and maintained to minimise noise impacts and fitted with non-tonal reversing alarms. • Minimise impacts from saw cutting/ use effective shielding. • Regular noise monitoring to monitor predicted verses actual levels. • Managing construction vehicle routes and speed of vehicles. • Modelling vibration impacts and monitoring where impacts are predicted. • Building condition reports on potentially impacted buildings and structures. • Review monitoring results and implement corrective actions as appropriate, such as for example revising mitigation measures, revising predictions. • Implement any additional feasible and reasonable mitigation measures, identified from the review of monitoring results, for minimising noise and vibration impacts • Implement on site controls (listed in the NVMP) • Land Use Survey to confirm surrounding land uses, prior to construction impacting receivers. • Be considerate of changes in work from home as result of COVID; will result in an increase in noise experience.	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)	NVMP including the Noise and Vibration Monitoring Program EWMS Construction Noise and Vibration Impact Statement (CNVIS) Out of hours works (OOHW) protocol Negotiated agreements Complaints procedure Project induction EPL
		Vibration impacts on nearby receptors, including heritage	Likelihood – 4 Consequence – 2 Risk – 9 (Moderate)		Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)	

Issue	Construction activity/aspect	Potential Impact	Risk (prior to mitigation)	Indicative mitigation measures	Risk (following mitigation)	Management Documents / Training Required
Soil and water quality	• Clearing and grubbing. • Earthworks and stockpile management. • Storage of fuels and chemicals • Maintenance of plant and equipment, including servicing and refuelling • Sediment basin management • Dewatering • Drainage works • Concrete works • Temporary access road construction • Landscaping maintenance	Erosion and movement of soils.	Likelihood – 5 Consequence – 3 Risk – 18 (Very High)	• Appropriately designed erosion control structures (e.g. rock checks, sedimentation basins, silt fences and sand bags) will be installed, maintained and cleaned regularly to maintain capacity. • Locate spoil stockpiles, plant and equipment away from drainage lines, watercourses or stormwater drains • Install clean water diversions to ensure clean and dirty water are not mixed on site. • Storage, compound access and parking areas sealed, as early during works as practicable. • Chemical storage meets bunding requirements. • Wheel mud reduction/ cleaning measures at exit of all sites where required. • Rehabilitation and landscaping works of disturbed areas undertaken as soon as the works are completed and/or progressively where possible. • Use of temporary ground covers such as hydraulic soil stabilisers or geotextile fabric will be used as much as possible to stabilise batters, stockpiles and large surface areas. • Implement concrete washout process within bunded areas. • Provide and maintain spill kits. • Implement SSWMP and Surface Water Monitoring Program • Implement Dewatering Permit process – testing and confirming criteria is complied with prior to dewatering • Investigate potential use of temporary Water Treatment Plants (pending EPA approval) for the management of surface water • Communicate discharge requirements to project team • Consider interface with other projects prior to discharging water into neighbouring areas • Maximise reuse of construction water • Treat construction water for reuse with water treatment plant • Monitoring/measuring potable water use • Include Flood Prone Areas on the SAMs to prioritise not storing materials inside these locations. • Location of stockpiles (outside spoil / acoustic sheds) outside flood risk areas • Set up sites to reduce flood impacts • Avoid blocking drainage lines or pits or provide alternative drainage pathway • Reduce groundwater change through the preparation of Groundwater Model and undertaken Groundwater Monitoring. • Nomination of flood evacuation route and warning notifications (for the Emu Plains (WHT13) construction ancillary facility).	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)	SWMP and Monitoring Program EWMS Project induction Targeted ERSED training Dewatering Permit EPL SAMs Sustainability Management Plan Groundwater Management Plan and Groundwater Monitoring Program. Flood Evacuation Management Plan (for the Emu Plains (WHT13) construction ancillary facility)
		Captured dirty water discharge from basins.	Likelihood – 4 Consequence – 3 Risk – 17 (Very High)		Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)	
		Dirty water not captured and leaves site without controls.	Likelihood – 4 Consequence – 3 Risk – 17 (Very High)		Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)	
		Materials (including hazardous materials or unconsolidated construction materials) washout from flood event.	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Excessive potable water usage	Likelihood – 4 Consequence – 3 Risk – 17 (very high)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Mobilization of Acid Sulfate Soils	Likelihood – 2 Consequence – 3 Risk – 12 (High)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Traffic routes cut off by flood water / Isolated by flood water (for the Emu Plains (WHT13) construction ancillary facility)	Likelihood – 3 Consequence – 4 Risk – 15 (High)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
Spoil and Fill	• Cuts • Fill areas • Haulage of spoil and fill • Stockpiling • Spoil areas • Site establishment utility • Service relocations • Earthworks • Drainage works	ERSED issues from cuts / batters / stockpiles.	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)	• Offsite spoil movements to be monitored and tracked on the site waste disposal register to ensure spoil movements meet EPA guidelines, including characterisation of the spoil to determine correct disposal locations and volumes. • Spoil to be beneficially reused, on or off site, where applicable and meeting environmental requirements. Includes reuse of excavated material, either as fill, or as earth mounds for noise control, or beautification, shielding or revegetation mounds on site. • All loads accessing public roads to be covered to prevent any loss of material, which may cause driver safety issues. • Only locate stockpiles in accordance with criteria in CEMP/SWMP • Classify and dispose of any contaminated land in accordance with EPA guidelines. • The locations of all heavy vehicles used for spoil haulage must be monitored in real time and the records of monitoring be made available electronically to the Planning Secretary and the EPA upon request for a period of no less than one year following the completion of construction	Likelihood – 3 Consequence – 1 Risk – 3 (Low)	SSWMP EWMS and Work Packs AQMP CEMP Contaminated Land Management Procedure
		Sensitive area damage from stockpiling.	Likelihood – 3 Consequence – 1 Risk – 3 (Low)		Likelihood – 2 Consequence – 1 Risk – 2 (Low)	
		Contaminated land.	Likelihood – 3 Consequence – 3 Risk – 13 (High)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	

Issue	Construction activity/aspect	Potential Impact	Risk (prior to mitigation)	Indicative mitigation measures	Risk (following mitigation)	Management Documents / Training Required
Waste Management	• Generation of all waste during construction activities including office waste, building materials, excess unsuitable spoil material, vegetation material.	Excessive waste being directed to landfill.	Likelihood – 3 Consequence – 1 Risk – 3 (Low)	• Apply waste hierarchy principles – avoid-reduce-reuse-recycle. • Waste materials contained in waste bins or other suitable containers, and collected for recycling, reuse or disposal by the licensed waste contractor. • Separate, contain, manage and dispose contaminated waste to prevent migration and further contamination whilst maintaining compliance with EPA requirements. • Label and store all liquid waste containers in a bunded area prior to removal off-site. • Undertake inspections of the worksite and waste storage areas to ensure litter / debris is regularly cleaned up and contained on site. • Establish recycling system early on in Project. • Establish good segregation areas for concrete and waste concrete is not to be transported off site for land disposal. • Section 143 Notices Under the POEO Act and provision of a letter to landholder highlighting the need for a “s.143 Notice”, the Contractor’s role and the respective roles of the TfNSW and the landholder in ensuring that the waste is appropriately managed. • Consider types of waste, how each waste type will be used as a beneficial use and address in the approvals that no other type of waste will be used. • Waste disposal tracking and/or permit system • Undertake waste audits	Likelihood – 2 Consequence – 1 Risk – 2 (Low)	Waste and Resource Management Plan (WRMP) Sustainability Management Plan (SMP) Waste Register EPL
		Incorrect disposal of contaminated waste.	Likelihood – 3 Consequence – 4 Risk – 19 Very High		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Meeting POEO Act requirements for VENM, ENM, Recovered Aggregate, Reclaimed Asphalt pavement and mulch	Likelihood – 3 Consequence – 3 Risk – 13 (High)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
Traffic and transport	• Haulage of material. • Import of material / plant / equipment. • Travel to / from site. • Loss of street parking	Accidents - Safety of commuters, pedestrians, cyclists, contractors and subcontractors.	Likelihood – 4 Consequence – 4 Risk – 20 (Very High)	• Include bicycle groups and bicycle delivery companies into consultation strategy • Technical and safety management via Traffic Management documentation: -Traffic Staging Drawings -Road Occupancy Licenses/applications -Vehicle Movement Plans -Traffic Guidance Schemes (TGS) (previously known as Traffic Control Plans) • Where additional access routes are required, these will aim to: - Avoid sensitive areas including schools, aged care facilities and child care facilities - Minimise impacts on residents - Return construction vehicles to major arterial roads as quickly as possible. • Any additional local road access will require DPE approval (reference E132) • Undertake before and after dilapidation surveys on local roads • All vehicles carrying materials are to be covered or otherwise adequately secured to prevent any loss of material, which may cause driver safety issues. • Toolbox workforce and driver education on communication of approved access and haulage routes and requirements • Implement Chain of Responsibility requirements (legislation) • All haulage vehicles to be clearly marked on the sides and rear with the project name and CSSI application number • Notifications and consultation with road users. Communicate changes with groups such as local schools about the changes • Monitor the number of spoil haulage trucks and concrete trucks exiting from the Ridge Street (WHT9) site between the hours of 10:00 pm and 7:00 am, Monday to Sunday and travelling westbound along Falcon Street.	Likelihood – 3 Consequence – 3 Risk – 13 (High)	Traffic Management Plan (TMP) Traffic Transport and Access Management Plan (TTAMP) EWMS Project induction Toolbox talks Construction Parking and Access Strategy (CPAS)
		Noise, vibrations and dust nuisance to residents on haul routes	Likelihood – 4 Consequence – 4 Risk – 20 (Very High)		Likelihood – 3 Consequence – 3 Risk – 13 (High)	
		Unapproved use or volume of heavy vehicles on local roads	Likelihood – 4 Consequence – 4 Risk – 20 (Very High)		Likelihood – 3 Consequence – 3 Risk – 13 (High)	

Issue	Construction activity/aspect	Potential Impact	Risk (prior to mitigation)	Indicative mitigation measures	Risk (following mitigation)	Management Documents / Training Required
		Closures or detours of roads, cycleways and footpaths/active transport causing disruption and delay	Likelihood – 4 Consequence – 3 Risk – 17 (Very High)	• Utilise Traffic Control Devices (TCD) to promote orderly traffic flow, regulate traffic (assign right of way, and indicate regulations in force), warn road users of hazards or regulatory controls ahead and guide traffic (e.g. guide signs to inform road users of directions to destinations, identify routes, and pavement markings to guide the travel path of vehicles) • Stage works to limit road occupancy and minimise potential impacts, and obtain all approvals with concurrence of the relevant road authority • Maintain pedestrian and cyclist connectivity, utilising detours where all other options are exhausted design sites to improve the safety or amenity of pedestrians including where heavy vehicles are entering and exiting construction support sites • Changes to pedestrian and bicycle connectivity will be signposted on location and communicated to local stakeholders prior to implementation • Incorporate the following measures as part of the TMPs, to minimise impacts on mobility impaired pedestrians: - Clearly define temporary footpath or bicycle lane/path arrangements by using appropriate signage - Maintain sufficient space for wheelchair access - Maintain a smooth, even surface on all temporary footpaths and crossings - Conduct regular inspections to maintain footpaths free of trip hazards - When changing footpath access, minimise grades for wheelchair use • Adopt Disability Discrimination Act 1992 requirements for kerb ramps and bus stop locations. • Notifications and consultation with road users. Communicate changes with groups such as cycling groups and delivery rider companies about the changes • Implement measures described in the Construction Parking and Access Strategy (CPAS) for minimising construction worker parking impacts.	Likelihood – 3 Consequence – 3 Risk – 13 (High)	
		Property access impacts	Likelihood – 4 Consequence – 3 Risk – 17 (Very High)	• Access to all utilities and properties will be maintained during construction, where practicable, unless otherwise agreed with the relevant utility owner, landowner or occupier • Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements must be developed in consultation with affected businesses, landowners and / or occupiers and implemented prior to the disruption • Adequate signage and directions to businesses must be provided prior to, and for the duration of, any disruption • Any property or utility access physically affected by the Project must be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or occupier	Likelihood – 3 Consequence – 3 Risk – 13 (High)	
		Public transport disruptions	Likelihood – 4 Consequence – 3 Risk – 17 (Very High)	• Where adjustments to bus stops within the construction works area are required, disruption to bus customers will be minimised by relocating the bus stops to a location within 400 metres walking distance of the existing stop • Advance notification will be provided to affected bus customers of the changes to stopping sequences and location of bus stops • Wayfinding signage must be provided directing commuters to adjacent or relocated bus stops. • Footpaths and (where required) road crossing facilities must be provided to any relocated bus stops such that accessibility and safety standards are achieved • Relocated bus stops will be functioning before affected bus stops are temporarily closed	Likelihood – 3 Consequence – 3 Risk – 13 (High)	

Issue	Construction activity/aspect	Potential Impact	Risk (prior to mitigation)	Indicative mitigation measures	Risk (following mitigation)	Management Documents / Training Required
Visual Impact, Landscaping, and Rehabilitation	• Cuttings and cut finishes. • Revegetation / landscaping. • Removal of visually prominent native vegetation. • Evening / night works. • Operation of ancillary facilities	General public aesthetic impacts	Likelihood – 3 Consequence – 1 Risk – 3 (Low)	• Landscape and rehabilitation plan including extensive seeding planting in required areas will be developed and implemented. • Landscape treatments will incorporate the surrounding landscape types and vegetation patterns and address view scapes. • Embankments and cuttings will be stabilised using appropriate landscape treatments. • The use of night-lighting will be minimised where possible during the construction phase and directed away from residential areas. • Site compounds and areas surrounding them will be kept tidy and be regularly cleaned and maintained. • Undertake landscaping and revegetation works in accordance with the approved Place Design and Landscape Plan.	Likelihood – 2 Consequence – 1 Risk – 2 (Low)	Place Design and Landscape Plan (PDMP) FFMP
		Heritage related visual	Likelihood – 2 Consequence – 2 Risk – 7 (Low)		Likelihood – 1 Consequence – 2 Risk – 6 (Low)	
Contamination	• Discovery of contaminated soils / asbestos • Management of known contamination	Contamination of land and /or waterways from spills/ asbestos/ land contamination/ discharges	Likelihood – 4 Consequence – 3 Risk – 17 (Very High)	• Implement unexpected finds contamination management measures • Undertake Detailed Site Investigations to determine location and extent of contamination, where required. • Manage contamination as per Contaminated Land MP • Remediate sites if required following specialist advice • EPL licensed water discharge locations and water quality criteria for wastewater treatment plant • Prepare and implement a Spill Response Procedure • Appropriate storage of potentially hazardous materials away from water courses, in bunded areas of appropriate site to contain all stored • Minimise stockpiling and storage of potentially hazardous materials in flood prone areas. Flood prone areas to be identified in the Project's sensitive area plans • Ensure separation of different stockpile materials (e.g., contaminated vs non-contaminated)	Likelihood – 2 Consequence – 2 Risk – 7 (Low)	Contaminated Land Management Plan SSWMP EPA guidelines Detailed Site Investigations Remediation Action Plans Spill Response Procedure
Groundwater	• Excavation (including tunnelling) below groundwater table.	Reduced groundwater recharge. Groundwater level changes and potential settlement Decrease in the groundwater baseflow to surface water features (creek or river gaining systems).	Likelihood – 3 Consequence – 4 Risk – 19 (Very High)	• Geotechnical model of representative geological and groundwater conditions to assess the cumulative predicted settlement, ground movement, stress redistribution, horizontal strain profiles and groundwater drawdown • Modelling of groundwater drawdown, tunnel inflows and saline water migration (using particle tracking) and preparation of an independently reviewed Groundwater Modelling Report • Monitoring of groundwater levels and quality during construction • Offer and carry out pre and post construction Condition Surveys at properties that take up the offer. • A geotechnical model of representative geological and groundwater conditions will be prepared to guide tunnel design and construction methodology • Implement GWMP & GMP • Implement an instrumentation and monitoring program to identify areas of ground movement/change.	Likelihood – 3 Consequence – 3 Risk – 13 (High)	Groundwater Management Plan (GWMP) Groundwater Monitoring Program (GMP). SSWMP EPL
	Surface construction activities	Change in groundwater quality due to the following: • Oil and fuel spills or leaks • Contaminant migration • Groundwater quality deterioration (blending of water types). • Saltwater intrusion. • Activation of acid sulfate soils.	Likelihood – 3 Consequence – 4 Risk – 19 (Very High)	• EPL licensed water discharge locations and water quality criteria for WTPs • Monitoring of groundwater levels and quality during construction • Site-specific trigger values for electrical conductivity (EC) will need to be developed using the pre-construction baseline data. • Spill response procedure to be implemented • Correct storage of hazardous materials • Implement GWMP & GMP • Implement SSWMP	Likelihood – 3 Consequence – 3 Risk – 13 (High)	

Issue	Construction activity/aspect	Potential Impact	Risk (prior to mitigation)	Indicative mitigation measures	Risk (following mitigation)	Management Documents / Training Required
General Environmental Management	• Environmental management / supervision • Incident response	Poor environmental culture leading to poor environment outcomes. Non-compliance with CEMP, EPL, MCoA and legislative requirements.	Likelihood – 4 Consequence – 2 Risk – 9 (Moderate)	• Ensure all environmental personnel are trained in the CEMP and all associated documents. • Environment team diligence in including requirements from CEMP and procedures into EWMS and training. • Regular review of environmental management documents. • Regular environment team and ERG meetings. • Environmental Manager to be involved in design and construction meetings. • Training in environmental emergency response. • Ensure NCR process is followed. • Early consultation with regards to proposed upcoming works and approvals to be sought. • Implementation of high operating standards & in accordance with accepted industry standards.	Likelihood – 2 Consequence – 2 Risk – 7 (Low)	CEMP Procedures (in CEMP and sub-plans) TfNSW Incident Management procedures EWMS Compliance Tracking Program Internal / external audits Environmental Review Group (ERG) EPL
		Failure to follow requirements of strategies / procedures.	Likelihood – 4 Consequence – 2 Risk – 9 (Moderate)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Failure to report environmental issues and incidents.	Likelihood – 4 Consequence – 2 Risk – 9 (Moderate)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Inconsistent advice to construction personnel.	Likelihood – 4 Consequence – 2 Risk – 9 (Moderate)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Inadequate response to environmental incident/ emergency.	Likelihood – 3 Consequence – 2 Risk – 8 (Moderate)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
Planning Approvals	• Approvals/ Legislative Compliance	Lost opportunities to implement innovations leading to better environmental outcomes	Likelihood – 4 Consequence – 2 Risk – 9 (Moderate)	• Early consultation in preparing approvals and CEMP. • Ensure all environmental personnel are trained in the CEMP and all associated documents. • Environment team diligence in including requirements from CEMP and procedures into EWMS and training. • Regular review of environmental management documents. • Regular review of compliance with environmental management documents, MCoA etc. • Regular environment team and ERG meetings. • Early consultation with regards to proposed upcoming works and approvals to be sought.	Likelihood – 2 Consequence – 2 Risk – 7 (Low)	CEMP Compliance Tracking Program Internal / external audits ERG EPL
		Poor working relationships with regulators	Likelihood – 4 Consequence – 2 Risk – 9 (Moderate)		Likelihood – 2 Consequence – 2 Risk – 7 (Low)	
		Delays due to receipt of approvals (e.g. CEMP, Planning Modifications, Environment Assessments for Ancillary Facilities)	Likelihood – 4 Consequence – 2 Risk – 9 (Moderate)		Likelihood – 1 Consequence – 2 Risk – 6 (Low)	

Appendix A3

Environment and Sustainability Statement

CEMP – Appendix A3

Western Harbour Tunnel Package 2 Project

SSI 8863

WESTERN HARBOUR TUNNEL
Package 2: WHT Driven Tunnels,
Mechanical and Electrical Fitout

Environmental Policy

Client: Transport for NSW | Project No: WHTP2 |

Revision 01

Date: 24/04/2023

Environmental Policy

Effective April 2023

ACCIONA Construction Australia commits to protect and sustain the natural environment on which we undertake our commercial activity of design and construction of the Western Harbour Tunnel Package 2 Project (the Project).

We commit to comply with environmental legislation, regulations, and other requirements/approvals, as a minimum, we commit to measure and report our performance against internationally recognised standards, and we commit to operate and maintain a robust Environmental Management System.

In implementing this policy, our objectives are:

- Effecting, monitoring and reviewing the Project Environmental Management System, including this policy, environmental objectives, targets, and outcomes to ensure continual improvement
- Documenting environmental risks within the Project Risk Register and managing these in accordance with the Project Environmental Management System
- Developing and using construction techniques that incorporate environmental considerations within the decision making to enable a positive environmental outcome
- Collaborating and engaging with suppliers and contractors to increase their involvement in all aspects concerning the environment
- Encouraging environmental awareness and communicating the importance of environmental management by providing information, ongoing training and guidance to our employees and subcontractors, and stakeholders where necessary
- Implementing initiatives to reduce our energy and water consumption, improve efficiency, and prevent pollution across the Project; minimising waste generation and maximise opportunities for reuse, recycling and recovery of construction and demolition waste in operation and community projects
- Measuring, understanding and minimising ecological and heritage impacts as a result of the Project
- Communicating openly with clients, government, and engaging the community on environmental issues
- Developing and delivering training materials that communicate this policy to all employees and subcontractors and make this policy publicly available for stakeholders.

Andrew Marsonet

WHT Project Director

Sustainability Policy

ACCIONA invests in, develops and operates infrastructure assets that make our planet more sustainable. Supported by our SMP2025 framework we develop and deliver regenerative infrastructure assets with an additional “value thinking” of people and the planet.

ACCIONA will deliver the Western Harbour Tunnel Project and achieve an ‘excellent’ Infrastructure Sustainability Council of Australia (ISCA) Infrastructure Sustainability (IS) Rating. Achieving an ‘excellent’ IS rating demonstrates a commitment to sustainable development and collaboration of all parties engaged to design, construct and deliver the WHT Project.

ACCIONA commits to continually improve the design and delivery aspects of the Project with an intent of achieving positive impacts within the construction footprint, the adjoining environment and the wider community.

ACCIONA commits to:

- mitigating environmental, social and economic impacts
- respecting and valuing the natural environment and enhancing biodiversity.
- working with the local community to leave a positive legacy
- advancing diversity in the workforce
- investigating clean energy options
- considering sustainability aspects in the procurement process
- engaging with suppliers to assess and refine a sustainable supply chain
- engaging staff and subcontractors to use equipment and materials responsibly
- reducing potential waste to landfill by reducing, reusing and recycling
- assessing and considering climate change aspects and impacts
- implementing restorative actions that result in a net positive benefit for society and the environment

These initiatives will optimise ACCIONA’s efforts to deliver the Project towards maximising environmental, social, economic and sustainability outcomes.

Approval

Andrew Marsonet

Project Director

Effective Date

27 January 2023

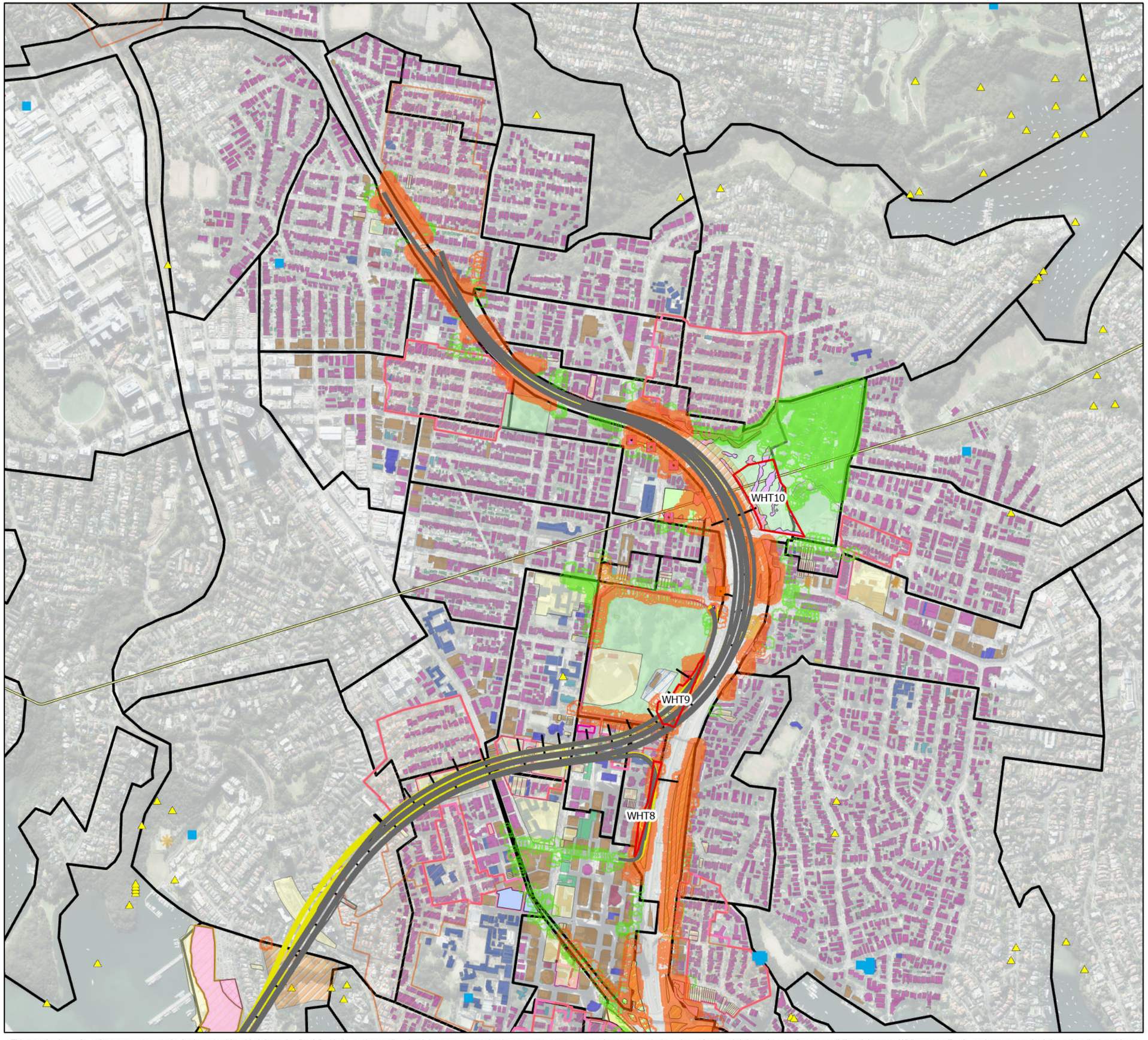
Appendix A4

Sensitive Area Maps

CEMP – Appendix A4

Western Harbour Tunnel Package 2 Project

SSI 8863



Western Harbour Tunnel - WHT

- Support Site
- Contractor Concept Design Road Plan
- Contractor Concept Design Crosspassage
- Emerging Design Road Plan
- Trees Direct Impact
- Trees Potential Impact
- Trees to be Retained
- Arborist Access Restrictions
- Groundwater Users
- Contamination Areas
- EPA Contaminated Sites
- Threatened Flora Species Nov17 (01/11/2017)
- Threatened Flora Species Mar18 (18/03/2019)
- Exclusion Zone For Vegetation

Plant CommunityTypes

- Exotic plantings
- (Native Plantings)
- (Planted Median)
- (Urban Exotic/Native)
- Western Harbour Tunnel Commonwealth Aboriginal Land
- AHIMS sites (11/04/2017)

Commonwealth & Aboriginal Land

- Commonwealth Land
- HMAS Waterhen Site
- s170 Areas (01/01/2018)
- Potential Non-Aboriginal Heritage Items ANZAC Park (17/08/2017)
- Commonwealth Heritage List (15/02/2017)

LEP Heritage Items and Conservation Areas (30/05/2017)

- State Heritage Act
- Conservation Area - General
- Item - General
- Item - Landscape
- National Heritage List (15/02/2017)
- Register of the National Estate (24/11/2015)
- State Heritage Register Curilages (30/05/2017)

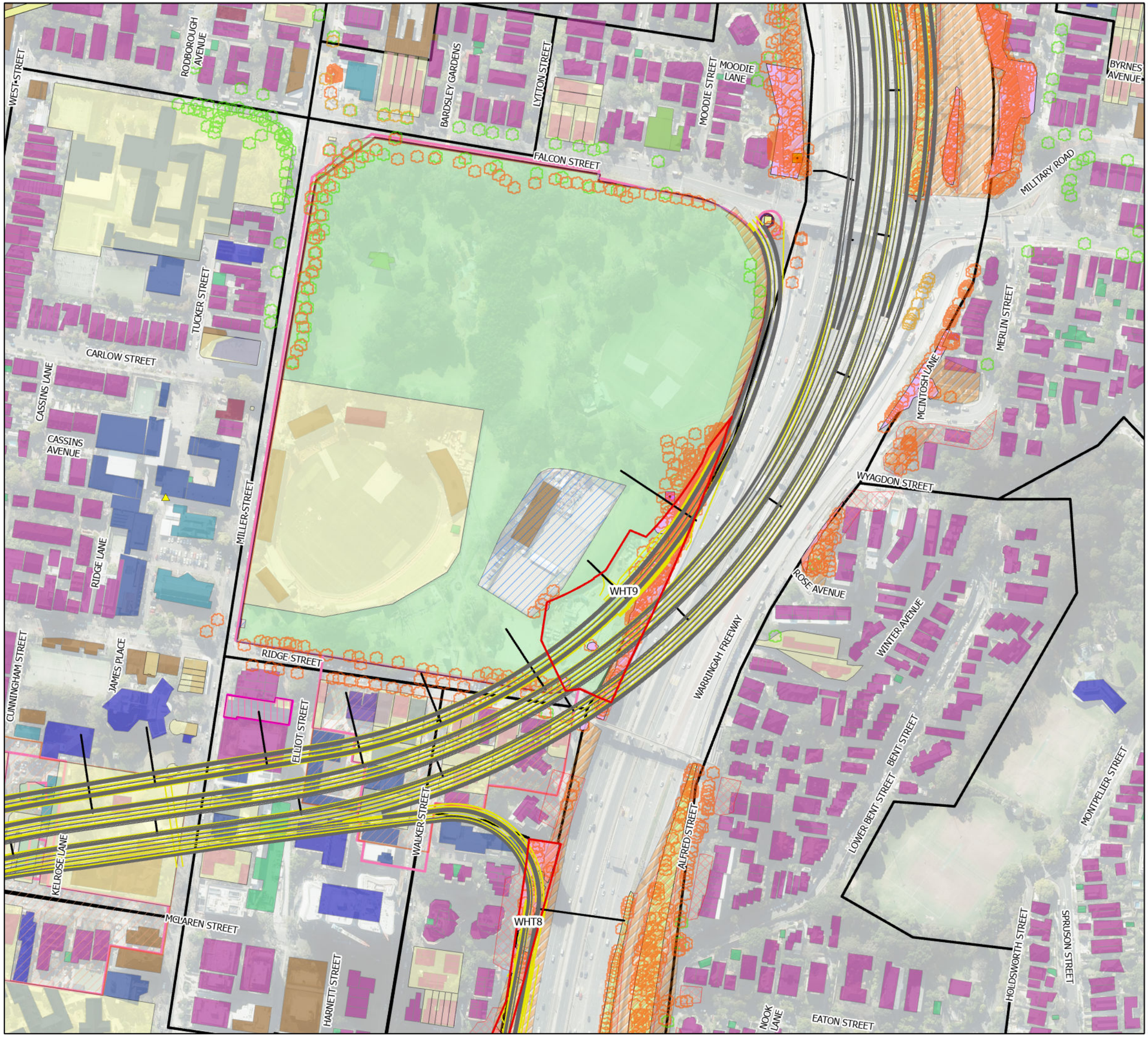
Land Use

- Childcare
- Church
- Commercial
- Community Centre
- Education
- Hotel
- Others
- Place of Worship
- Residential
- School
- Noise Catchment Areas

N

150 0 300 Meters

acciona



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Plant CommunityTypes

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Land Use

- Childcare
- Commercial
- Community Centre
- Education
- Hotel
- Others
- Place of Worship
- Residential
- School
- Noise Catchment Areas

N

0 25 50 100 150 Meters

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- Threatened Flora Species Mar18 (18/03/2019)
- Exclusion Zone For Vegetation

Plant CommunityTypes

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- s170 Areas (01/01/2018)
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Land Use

- Childcare
- Commercial
- Community Centre
- Education
- Hotel
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- Place of Worship
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N

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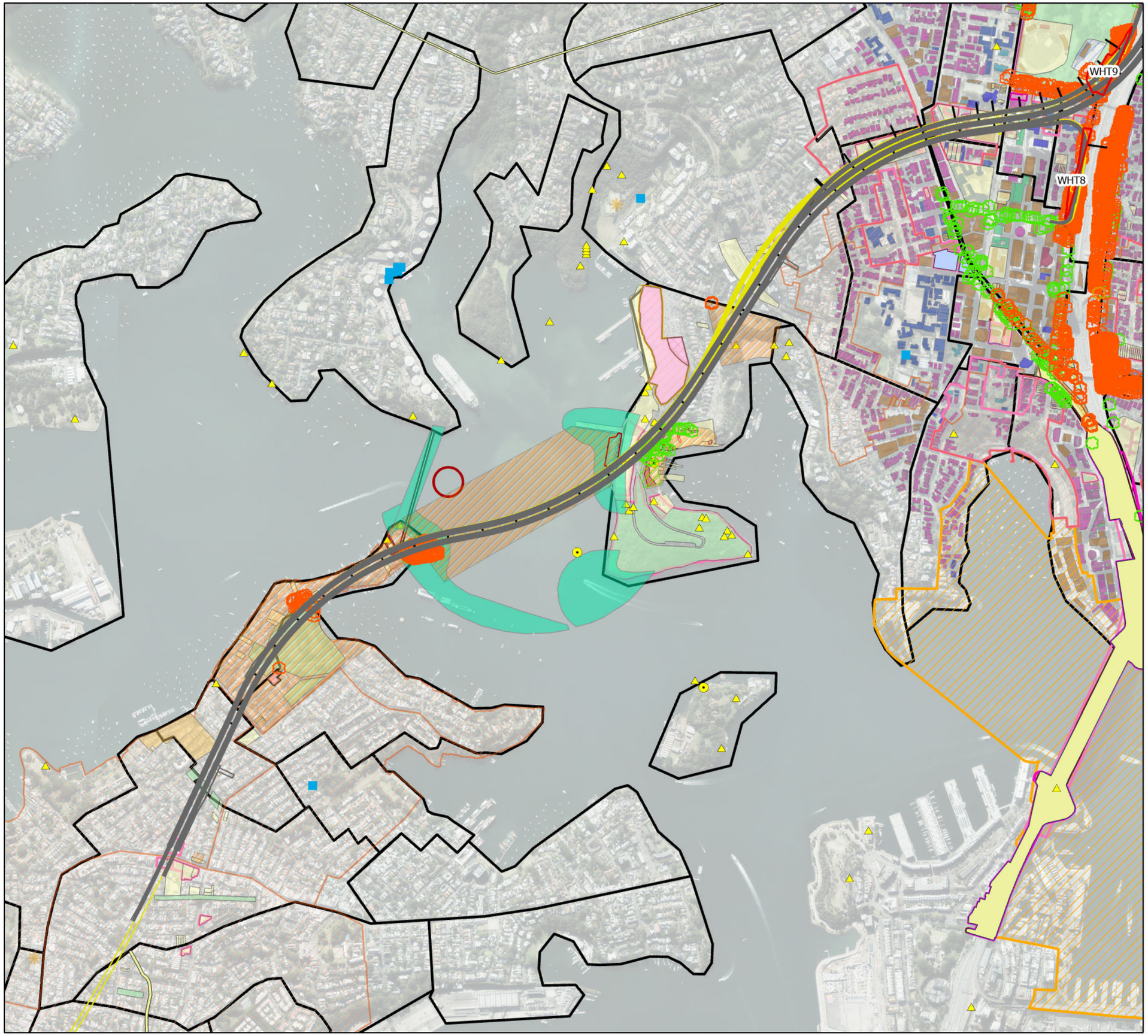

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- Contractor Concept Design Crosspassage
- Emerging Design Road Plan
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- Trees Potential Impact
- Trees to be Retained
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- Arborist Access Restrictions
- Groundwater Users
- Contamination Areas
- EPA Contaminated Sites
- Threatened Flora Species Nov17 (01/11/2017)
- Threatened Fauna Species (12/08/2020)
- Exclusion Zone For Vegetation

Plant CommunityTypes

- Exotic plantings
- (Native Plantings)
- PCT 1778 / BVT ME65 - Coastal Sandstone Foreshores Forest
- (Planted Median)
- (Urban Exotic/Native)
- Western Harbour Tunnel Commonwealth Aboriginal Land
- MV Cape Don Approximate Footprint
- Marine Archaeology (16/01/2018)
- AHIMS sites (11/04/2017)

Commonwealth & Aboriginal Land

- Commonwealth Land
- HMAS Waterhen Site
- Subject to ALC
- s170 Areas (01/01/2018)
- Commonwealth Heritage List (15/02/2017)

LEP Heritage Items and Conservation Areas (30/05/2017)

- State Heritage Act
- Conservation Area - General
- Item - Archaeological
- Item - General
- Item - Landscape
- National Heritage List (15/02/2017)
- Register of the National Estate (24/11/2015)
- State Heritage Register Curilages (30/05/2017)
- World Heritage Area (05/02/2017)

Land Use

- Childcare
- Commercial
- Education
- Hotel
- Others
- Place of Worship
- Residential
- School
- Noise Catchment Areas

N

0 75 150 300 450 Meters

acciona

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- Arborist Exclusion Zones
- Arborist Access Restrictions
- Groundwater Users
- Contamination Areas
- EPA Contaminated Sites
- Threatened Fauna Species (12/08/2020)
- Exclusion Zone For Vegetation

Plant CommunityTypes

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- Marine Archaeology (16/01/2018)
- AHIMS sites (11/04/2017)

Commonwealth & Aboriginal Land

- Subject to ALC
- s170 Areas (01/01/2018)

LEP Heritage Items and Conservation Areas (30/05/2017)

- State Heritage Act
- Conservation Area - General
- Item - Archaeological
- Item - General
- Item - Landscape
- Register of the National Estate (24/11/2015)
- State Heritage Register Curilages (30/05/2017)
- Noise Catchment Areas
- 33kV Utility Installation alignment

WHT3

WHT12

N

0 75 150 300 450 Meters

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Western Harbour Tunnel - WHT

- PCT 4023: Coastal Valleys Swamp Oak Riprian Forest
- MOD2 Approved Area
- Non Aboriginal Heritage
- Swamp Oak Floodplain Forest of the NSW Coast Sydney Basin and South East Corner Bioregions
- Exotic Vegetation

16/08/2023

N

0 75 150 Meters

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Appendix A5

Environmental Incident classification and reporting

CEMP – Appendix A5

Western Harbour Tunnel Package 2 Project

SSI 8863

Environmental Incident Procedure

Procedure Number: EMF-13-PR-0001 Environmental Incident Procedure
Effective Date: 19/07/2021
Review Date: 19/07/2023

1 Who is this document for?

All Ongoing / Temporary/ Seconded/Casual staff of TfNSW	**YES**
Transport Service Senior Managers and Executives	**YES**
Labour Hire, Consultants and Professional Service Contractors	**YES**
Delivery Partners / Contractors	**YES**

2 Purpose and Scope

2.1 Purpose

The purpose of this document (Procedure) is to set out the procedure to be followed if, during an activity being carried out by or on behalf of TfNSW, there is:

- a report-only event
- a non-compliance
- regulatory action received
- an environmental incident.

The Procedure sets out the steps for the:

- identification,
- classification and
- reporting

of report-only events, non-compliances, regulatory action and environmental incidents.

2.2 Scope

The Procedure sets out internal only reporting processes for environmental events and the additional process for ‘notifiable events’, which are environmental incidents that must be reported externally (see section 3.3).

The Procedure is applicable to all TfNSW activities where report-only events, non-compliances, regulatory action and environmental incidents may occur. The requirements of the Procedure must be communicated to all TfNSW employees and contractors (e.g. during inductions) who undertake those activities.

This includes (but is not limited to):

- Activities undertaken by contractors on behalf of TfNSW
- Temporary activities, such as preliminary investigations (e.g. geotechnical and environmental surveys)
- Construction and maintenance of TfNSW assets
- Activities at TfNSW properties and facilities (including TAHE)
- Maritime vessels operated by TfNSW.

The procedure does NOT cover report-only events, non-compliances, regulatory action and environmental incidents relating to:

- Operating agencies embedded within TfNSW, such as Sydney Metro. At the time of release of the Procedure, there was a Corporate Functions Review underway, which sought to incorporate Sydney Trains and NSW TrainLink into TfNSW. The single operating model may involve the future amalgamation of environmental incident procedures. Regardless, it is noted that all agencies provide their incident data to Environment and Sustainability (E&S) Branch for the purposes of cluster reporting;
- Operational road and traffic activities of the general public (e.g. vehicle accidents, fires caused by discarded cigarette butts);
- Boating accidents (except those involving TfNSW Maritime vessels);
- Dumping of materials by members of the public on TfNSW managed land (except where hazardous materials are unexpectedly found during construction or maintenance activities);
- Marine oil and chemical spills covered by the National Plan for Maritime Environmental Emergencies (Australian Maritime Safety Authority, 2014).

The Procedure does not provide guidance on management responses or corrective actions required following environmental incidents and non-compliances, which are site specific and should be addressed by those with responsibility for the activity that caused the incident or non-compliance.

However, TfNSW E&S Branch is available to provide advice on appropriate responses and corrective actions in relation to individual incidents or non-compliances.

3 Requirements

3.1 Environmental incidents, report-only events, non-compliances and regulatory action

This Procedure is applicable to a range of environmental incidents, report-only events, non-compliances and regulatory action that may occur during activities undertaken by, or on behalf of, TfNSW. Each of these events and their reporting requirements are described in the following sections.

Personnel using this Procedure should consider the definitions of each of these events when reporting. Definitions are provided in Section 6.

Note that a set of circumstances may be both a non-compliance and an environmental incident. An environmental incident could also result in regulatory action.

3.1.1 Environmental incidents

Environmental incidents are defined in section 6. Reporting requirements are detailed in section 3.2.

The person responsible for operational management of the site/activity that caused the incident should assume responsibility for reporting in accordance with this Procedure, together with coordinating the response to the incident, including directing actions as necessary.

The TfNSW Environment Manager will classify reported incidents for the purposes of internal environmental performance reporting and analysis of environmental incident trends (as outlined in Figure 3.2.1).

Environmental incident classifications are described in Table 3.1.1, below. The classification system is aligned to the consequence levels (C6 – C1) from the TfNSW Enterprise Risk Management Standard and considers the key risk areas of:

- Environment

- Reputation and Integrity
- Regulations and Compliance.

The appropriate consequence level for each of the three key risk areas will be recorded for each incident, but only the highest recorded consequence level will be used as the incident classification for reporting purposes.

Note that not all criteria described for each consequence level in Table 3.1.1 need to be met in order to assign an incident classification – the most appropriate criteria should be considered when determining the consequence level for each key risk area for each incident.

Table 3.1.1: Environmental Incident Classification

	Incident Category					
Key risk area	**C6 Insignificant**	**C5 Minor**	**C4 Moderate**	**C3 Major**	**C2 Severe**	**C1 Catastrophic**
Environment	No appreciable changes to environment.	Change from existing conditions that can be rectified immediately (< 1 day) with available resources.	Short-term (< 1 year) and/or well-contained environmental impact. Minor remedial actions probably required.	Short to medium term (between 1 and <5 years) environmental impact. Considerable remedial actions probably required.	Medium-term (>5 years) environmental impact. Extensive remedial actions probably required.	Long-term (>10 years) large-scale environmental impact. Extensive and ongoing remedial actions probably required.
Reputation and integrity	Single negative article in local media. Limited social media commentary. Goodwill, confidence and trust retained. Confined to the Branch. Local council may want to discuss.	Series of negative articles in local media (District / electorate based adverse media). Some social media commentary. Confidence remains - minor loss of goodwill. Confined to Branch but requiring notification to Division. Council requires written explanation. Recoverable with little effort or cost. Some continuing scrutiny/attention.	Extended local media coverage with some broader Regional media coverage. Extended negative social media coverage. Confidence and trust of stakeholders dented (recoverable at modest cost within existing budget and resources). Division formal response needed to State Government/Regulator.	State media coverage, short term negative national media coverage. Widespread social media coverage Confidence/trust impaired. Project/activity credibility under question. TfNSW and/or Ministers Department requires update.	Sustained negative State media coverage. Regular ‘talk-back’ programs questioning credibility and capability. Confidence and trust are severely damaged. Widespread negative social media coverage. Regular updates demanded by Minister. Stakeholders withdraw their support recoverable at considerable cost, time and staff effort.	Sustained, high profile media attention at National level. Material change in the public perception of the Agency. Extensive negative social media coverage Confidence and trust non-existing. Government forced to reverse decision. Stakeholders are actively campaigning against the organisation.

Table 3.1.1: Environmental Incident Classification

	Incident Category					
Key risk area	**C6 Insignificant**	**C5 Minor**	**C4 Moderate**	**C3 Major**	**C2 Severe**	**C1 Catastrophic**
Regulations and compliance	Low-level/Technical non-compliance with legal and/or regulatory requirement or duty by individuals or TfNSW- not reportable. Minor non-compliance to a low impact contract clause – little or no interest by either party to pursue or rectify.	Non-compliance with whole or significant aspects of Government policy not reportable but requiring internal activity to put in place. Formal investigation and/or formal notification to regulator. Minor breach of contract by either party rectified through local management discussion.	Non-compliance with key Government policy - reportable and/or explanation required – need to put in place as soon as possible. Non-compliance – key obligation. Formal notification to regulator. Agency on notice. Breach of contract by either party rectified at Branch level management discussion. Small fine and no disruption to services.	Technical non-compliance with a minor Government Policy - not reportable. Low level non-compliance. Technical non-conformance. Minor non-compliance to a low impact contract clause – little or no interest by either party to pursue or rectify. Substantial fine and no disruption to services.	Non-compliance with high profile, outward facing Government policy or Ministerial decree - immediately reportable to Government body (e.g. Treasury) and action to put in place required immediately (high priority). Continuous breach resulting in prohibition notices. Breach of significant, key aspects of contract by either party leading to lodgement (threat) to sue and recompense at severe financial levels Cessation of contract may occur. Large fines as a result of non-compliance. Licence or accreditation restricted or conditional affecting ability to operate.	Non-compliance with high profile Government policy or Ministerial decree - immediately reportable to Ministerial level requiring actions to put in place immediately (high priority) and progress to be reported to the Minister on an agreed and appropriate schedule. Litigation and potentially imprisonment. Loss of Operating licenses. Continued breach cannot be tolerated. Major contract breach by either party leading to significant litigation and financial costs . Total breakdown and cessation of contract. Criminal prosecution as a result of non-compliance.

3.1.2 Significant environmental incidents

Significant Incidents are environmental incidents that are serious in nature and have significant consequences warranting escalation to TfNSW senior management.

An environmental incident is to be defined and treated by the TfNSW Environment Manager as a potential Significant Incident if it meets one or both of the following:

- the severity of the incident is likely to be classified as C3, C2, or C1 in accordance with Section 3.1.1
- the history of the project, past performance and/or previous regulatory interest, indicate the project is likely to be the subject of a penalty notice or prosecution

Potential Significant Incidents are escalated by TfNSW to the Executive Director Environment and Sustainability, who will determine whether the incident is deemed to be a Significant Incident and require further escalation to the Secretary and other senior management, to ensure they are aware of the incident and can implement or authorise any required responses.

The Significant Incident escalation process is detailed in Appendix A and Figure 3.2.1.

3.1.3 Report-only events

Report-only events are defined in section 6. Reporting requirements are detailed in section 3.2. Examples of report-only events include:

- Environmental incidents caused by weather events that are beyond the design capacity of environmental controls and/or mitigation measures in accordance with project specific requirements;
- Environmental incidents caused by persons or entities not associated with an activity being undertaken by TfNSW;
- Pre-existing conditions not associated with an activity being undertaken by TfNSW;
- Unexpected finds that are managed in accordance with relevant procedures / guidelines.

Despite these events being outside the scope of control of an activity, it is likely that a management response will be required to address them. As such, it is important that they are still reported (see section 3.2) to understand any resulting environmental impacts, inform trend analysis and any future activities in that location and allow any required management responses to be developed.

Report-only events can be considered to be unavoidable and so not reflecting the performance of a site, and will not be included in performance reporting. However, the response to a report-only event should be taken into account when considering site performance, as a deficient or inappropriate management response could result in a non-compliance and/or an environmental incident.

Where a report-only event relates to an unexpected find and the same issue can then reasonably expected to be found at the same location in future, additional finds from that location need not be reported.

3.1.4 Non-compliances

Non-compliance is defined in section 6. Reporting requirements are detailed in section 3.2.

A non-compliance could also be an environmental incident.

3.1.5 Regulatory action

Regulatory action is defined in section 6. Reporting requirements are detailed in section 3.2.

Regulatory action includes, but is not limited to:

- Prosecutions
- Penalty notices
- Clean up notices
- Prevention notices
- Official cautions
- Formal warnings
- EPA show cause notifications.

Copies of any regulatory action issued by an environmental regulator must be provided as part of the reporting that is undertaken in accordance with section 3.2.

3.2 Reporting process

3.2.1 Standard reporting process

The standard reporting process for all environmental incidents, significant environmental incidents, report-only events, non-compliances and regulatory action is detailed in Figure 3.2.1.

Where the reporting process requires submission of a written report to TfNSW, the person making the report must use the following formats and meet the information requirements detailed within each:

- Road based and maritime projects: Environmental Event Reporting Form (624/400)
- Rail based projects: INX reporting system

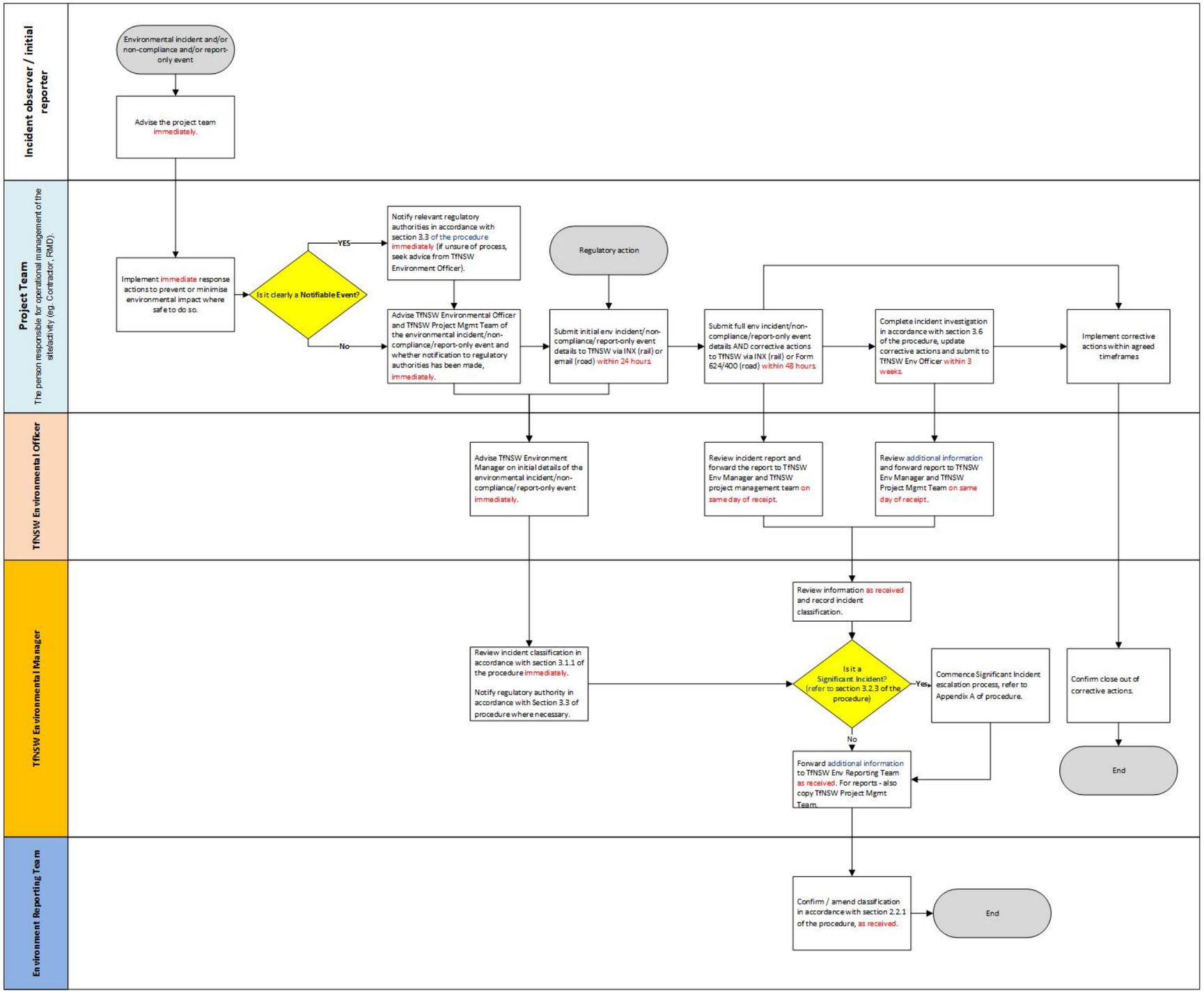
Information included in reporting must be factual and accurate.

For the initial 24-hour email notification for road projects, the following information must be provided:

- Date of event
- Project / site name
- Type of event that has occurred (ie- environmental incident, incident and non-compliance, non-compliance, report-only or regulatory action)
- Description of the event
- Quantity / volume
- Immediate response actions that were implemented
- Notification/s undertaken.

In the case that regulatory action is received relating to a previously reported environmental incident, non-compliance or report-only event, reference to the relevant event must be made in the report for the regulatory action.

Figure 3.2.1: Reporting process



3.2.2 Other internal notifications

When reporting in accordance with Figure 3.2.1, TfNSW project management teams should also undertake the following internal notifications as appropriate:

- Corporate Communications / Media for any environmental incidents, report-only events, non-compliances and regulatory action that have potential for negative community or media attention;
- Legal Branch, for any environmental incidents, report-only events, non-compliances and regulatory action that could result in a (further, in the case of the latter) regulatory response against TfNSW. In these instances, limit written commentary on the incident by all staff, including emails;
- Safety Branch for any incidents that involve actual or potential risks to the health and safety of workers or the general public.

3.3 Notifiable events

A notifiable event is any environmental incident, report-only event or non-compliance (see section 3.1, above) that triggers a specific statutory requirement to notify an authority.

The key notification requirements are described below. Note each statutory requirement to notify may specify a particular person who is responsible to make the notification as well as the timing of when this must occur. The details of any notification conducted must be included in the reporting that is undertaken in accordance with section 3.2.

3.3.1 Material Harm pollution incidents

Under Part 5.7 of the POEO Act, there is a duty to immediately notify (i.e. promptly and without delay) each relevant authority (see section 3.3.2) of a pollution incident where material harm to the environment is caused or threatened.

The POEO Act states that a pollution incident should be considered Material Harm if:

> *"(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*
>
> *(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000"*

Material Harm only relates to pollution incidents. Other environmental incidents, such as conservation, heritage and planning breaches, are not included in the definition of a pollution incident.

3.3.2 Notification of Material Harm pollution incidents

The relevant authorities that must be notified for a Material Harm pollution incident are listed in tables 3.3.2a and 3.3.2b below. It is important to note the order of notification and phone numbers to use can vary depending on the nature of the pollution incident, as detailed in the two tables.

All of the authorities listed (whether considered relevant or not) must be contacted for each Material Harm pollution incident to satisfy POEO Act requirements. Serious penalties apply to both individuals and corporations for failing to notify Material Harm pollution incidents:

- Maximum penalty for individuals - $500,000
- Maximum penalty for corporations - $2,000,000.

Table 3.3.2a: Authorities to notify for Material Harm pollution incidents that present an immediate threat to human health or property		
Order	**Authority**	**Contact number**
1	Fire and Rescue NSW	000
2	NSW EPA environment line	131 555
3	Ministry of Health (via the local Public Health Unit)*	Contact 1300 066 055 to be directed to the local Public Health Unit, or visit the NSW Health Website
4	SafeWork NSW	131 050
5	The Appropriate Regulatory Authority*, being either: • Local council • Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council).	Local council - contact Office of Local Government on 4428 4100, or visit the Office of Local Government website Western Lands Commissioner – phone 6883 5400

Table 3.3.2b: Authorities to notify for Material Harm pollution incidents that do **NOT** present an immediate threat to human health or property		
Order	**Authority**	**Contact number**
1	NSW EPA environment line	131 555
2	The Appropriate Regulatory Authority*, being either: • Local council • Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council).	Local council - contact Office of Local Government on 4428 4100, or visit the Office of Local Government website Western Lands Commissioner – phone 6883 5400
3	Ministry of Health (via the local Public Health Unit)*	Contact 1300 066 055 to be directed to the local Public Health Unit, or visit the NSW Health Website
4	SafeWork NSW	131 050
5	Fire and Rescue NSW	1300 729 579

** The appropriate contact for the Appropriate Regulatory Authority and Public Health Unit will vary according to the geographic location of the activity. These contact numbers should be found in advance and stored for immediate access (e.g. in a project's Construction Environmental Management Plan and/or on site notice boards) should a pollution incident need to be notified.*

When notifying authorities, do not speculate on the origin, causes or outcomes of a pollution incident. Rather, state very simply and concisely the following only:

a) The time, date, nature, duration and location of the incident

b) The location of the place where pollution is occurring or is likely to occur, the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known
c) The circumstances in which the incident occurred (including the cause of the incident, if known)
d) The action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.

If further information becomes known after the initial notification, that information must immediately be notified to all authorities in accordance with Section 150 of the POEO Act. The verbal notification must be followed by written notification to each relevant authority within seven days of the date on which the incident occurred, setting out the above information.

3.3.3 Summary of other regulatory agency notification requirements

A summary of the other key statutory notification requirements that could arise from TfNSW environmental incidents, report-only events and non-compliances is provided in Table 3.3.3.

Table 3.3.3: Regulatory agency notification requirements				
Event type	**Legislation**	**Part / section**	**Agency**	**Notification requirement**
Discover Aboriginal object	*National Parks and Wildlife Act 1974*	Section 89A	Heritage NSW	Notify the Secretary of the Department of Planning, Industry and Environment in writing using the form approved by the Secretary (if any) within a reasonable time after becoming aware
Discover Aboriginal remains	*Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984*	Section 20	Commonwealth Department of Agriculture, Water and the Environment	Notify the Commonwealth Minister in writing as soon as practicable after becoming aware, giving particulars of the remains and their location
Discover non-Aboriginal relic	*Heritage Act 1977*	Section 146	Heritage NSW	Notify the Heritage Council in writing within a reasonable time after becoming aware
Fires	*Rural Fires Act 1997*	Section 64	NSW Rural Fire Services	Notify an appropriate fire officer of the inability to extinguish any fire burning during a bush fire danger period applicable to the land.
Land contamination	*Contaminated Land Management Act, 1997*	Section 60(1)	EPA	Notify EPA in writing as soon as practicable after becoming aware of the contamination, where required as prescribed in the EPA 'Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997'
Non-compliance	Various	N/A	Various	Requirements to notify the relevant regulatory authority when a non-compliance has occurred (eg- with a Condition of Approval issued under Division 5.2 of the EP&A Act)
Pollution incident (material harm)	*Protection of the Environment Operations Act, 1997*	Part 5.7	EPA	See section 3.3.2
Pollution incident in water supply catchment area	Various	N/A	N/A	Notify the relevant water supply authority if an environmental incident has the potential for unapproved impacts on a drinking water supply

3.4 Requests for written reports from regulatory authorities

If TfNSW receives a request from an environment regulatory authority for a written report regarding an environmental incident, report-only event or non-compliance, the relevant Environment Manager must be immediately contacted for advice. No further correspondence (including email) about the event should be distributed either internally or externally until advice is received. E&S will then coordinate with Legal Branch to:

- assist in the investigation of the environmental incident, report-only event or non-compliance
- provide legal advice to the project
- co-ordinate the preparation of the written response to the regulatory authority.

3.5 Corrective actions

A key aspect of the TfNSW Environment and Sustainability Policy that is addressed through this procedure is being accountable for addressing and minimising the environmental impacts of TfNSW activities. This can be achieved by developing appropriate corrective actions and implementing them within a timely manner following an environmental incident, with the aim of avoiding a repeat of that incident.

There are a variety of scenarios in which an environmental event may occur on a TfNSW project. It is important that corrective actions are:

- specific to the incident that has occurred
- meaningfully address the root cause(s) of the incident
- designed to prevent incident reoccurrence.

Corrective actions could include (but are not limited to) the following:

- physical works to install, augment or rectify controls or a site issue
- testing and/or monitoring
- review and improvement of construction methods or work practices
- review and update of management plans, procedures or other tools
- communication, training and awareness initiatives for workers.

In most cases it will not be sufficient to simply notify workers of correct systems / procedures (e.g. via toolbox talk). A review should be undertaken by the project team following an incident or non-compliance to determine why the systems / procedures failed (or alternatively a formal investigation, when required by section 3.6), and necessary changes made to ensure they do not fail in future. Site staff should then be made aware of the changes and trained as necessary.

Immediate/short-term corrective actions including timeframes for completion must be clearly described in incident/non-compliance reporting. Updates about longer-term corrective actions including timeframes for completion can be provided to the TfNSW Environment Officer and TfNSW Project Management Team post submission of the incident/non-compliance report.

3.6 Investigations

Serious environmental incidents and non-compliances must be investigated to identify the causes, with the purpose of preventing a recurrence. A root cause analysis investigation must be completed by the project team for all environmental incidents with a classification of C1, C2 or C3, or any other environmental incidents or non-compliances as determined by TfNSW.

The scope of the investigation will be determined by the TfNSW Environment Officer or Environment Manager. The project team must provide TfNSW with a final investigation report

within three weeks of the environmental incident or non-compliance being identified. The report must include the minimum information described in Table 3.6 (below).

Table 3.6: Investigations

Element	Description
Sequence of events	The sequence of events that led to the incident or non-compliance
Findings	Given the sequence of events, what are the key findings of the investigation (i.e. what are the main causes of the incident or non-compliance).
Management methods	A record of the management methods to be changed and/or implemented to avoid the incident or non-compliance reoccurring.
Key learnings	Describe the key learnings from the investigation into the incident or non-compliance. Detail which learnings may be relevant to other transport projects.

4 Accountabilities

Table 4 details the key accountabilities for implementing this Procedure.

Table 4: Key accountabilities

Requirement	Detail
Environment Director	Oversee compliance with the procedure and make the final determination on the classification of all environmental incidents, report-only events and non-compliances
Environment reporting team	Recording of all environmental incidents, report-only events, non-compliances and regulatory action, confirm / amend the classification of environmental incidents, report-only events and non-compliances in accordance with section 3.1 and monitor compliance with the Procedure
Executive Director Environment and Sustainability	Make determinations on whether an environmental incident will be considered a Significant Incident (see section 3.1.2). Assume the role of Information Distributor when a Significant Incident has occurred (see Appendix A).
Observer of environmental incident, report-only event, non-compliance or regulatory action	Immediately report in accordance with Figure 3.2.1
Person/s responsible for environmental incident, report-only event, non-compliance or regulatory action	Report and respond in accordance with Figure 3.2.1
Project Managers	Provide appropriate resources to respond to an environmental incident, report-only event, non-compliance or regulatory action in accordance with this Procedure

Table 4: Key accountabilities	
Requirement	**Detail**
TfNSW Environment Manager	Report environmental incidents, report-only events, non-compliances or regulatory action in accordance with Figure 3.2.1, assign initial classification in accordance with section 3.1.1, monitor corrective actions, and actively promote compliance with this procedure at a program level. Assume the role of Information Controller when a Significant Incident has occurred (see Appendix A).
TfNSW Environment Officer	Report environmental incidents, report-only events, non-compliances or regulatory action in accordance with Figure 3.2.1, monitor corrective actions and actively promote compliance with this procedure at a project level

5 Related policy, systems and documents

The following documents and systems are available on agency intranets and the internet:

- Environmental Event Report Form (for use by road and maritime sites and projects)
- INX system (for use by rail and light rail sites and projects)
- Environment and Sustainability Policy
- Unexpected finds procedures – refer to relevant guideline/procedure

6 Definitions and acronyms

All terminology in this Procedure is taken to mean the generally accepted or dictionary definition with the exception of the following terms which have a specifically defined meaning:

- **Significant incident** – an environmental incident that is likely to receive a classification of C3, C2 or C1, OR the history of the project, past performance and/or previous regulatory interest, indicate the project is likely to receive a penalty notice or be subject to prosecution, and therefore requires escalation to the Secretary and other TfNSW senior management
- **DPIE** – Department of Planning, Industry and Environment
- **Environment Director –** consists of Associate Director Environmental Management; Director Environment Motorways; Director Environment Regions; Director Environment Sydney
- **Environment Manager** – consists of Environment Manager or Senior Manager Environment from Environment and Sustainability Branch
- **Environment Officer** – consists of Environment Officer and Environment and Planning Manager from Environment and Sustainability Branch
- **Environment Reporting team** – consists of those in Environment and Sustainability Branch responsible for administering and maintaining the EnvOps mailbox and INX reporting system (for environment entries)
- **Environmental event** – a report-only event, non-compliance, regulatory action or environmental incident
- **Environmental incident** - An environmental incident is an event or set of circumstances, as a consequence of which pollution (air, water, noise, or land) or an adverse environmental impact has occurred, is occurring, or is likely to occur. Adverse environmental impact includes contamination, harm to flora and fauna (either individual

species or communities), damage to heritage items and adverse community impacts. An unexpected find that is not managed in accordance with relevant procedures / guidelines is also considered an environmental incident

- **EPA** - NSW Environment Protection Authority
- **EPL** – Environment Protection Licence (issued by EPA)
- **E&S** – (Safety, Environment and Regulation) Environment and Sustainability Branch
- **Investigation** – The process by which the cause(s) of an environmental incident is examined and identified.
- **INX reporting system** – the online system used to record and track environmental incidents, report-only events, non-compliances and regulatory action relating to rail projects and premises.
- **Non-compliance** - a failure to comply with any condition of approval, environmental assessment safeguard / mitigation measure, licence condition, permit or any other statutory approval relevant to the activity and/or area where the activity occurs;
- **Notifiable event** - Any environmental incident, report-only event or non-compliance that triggers a specific statutory requirement to notify a regulatory authority.
- **POEO Act** - Protection of the Environment Operations Act 1997
- **Pollution** – Pollution (including air pollution, water pollution, noise pollution and land pollution) as defined in the dictionary to the POEO Act.
- **Pollution incident** – Has the same meaning as defined in the dictionary to the POEO Act.
- **Regulatory action** - any formal regulatory response from an environmental regulator including but not limited to penalty notices, clean-up notices, prevention notices, official cautions, show cause notices and formal warnings.
- **Report-only event** - An environmental incident or unexpected find resulting from circumstances outside the scope of controls and of an activity.
- **RMS** – Roads and Maritime Services
- **TfNSW** – Transport for NSW (excludes the operating agencies: Sydney Trains; Sydney Metro; State Transit Authority; NSW TrainLink)
- **Transport Cluster** – all TfNSW divisions and operating agencies (includes the operating agencies: Sydney Trains; Sydney Metro; State Transit Authority; NSW TrainLink)
- **Unexpected find** – An unexpected discovery such as a heritage item, threatened species, contamination, asbestos or hazardous substance.
- **WHS** – Work Health and Safety

7 Document control

7.1 Superseded documents

This Procedure replaces the following documents:

- Roads and Maritime Services Environmental Incident Classification and Reporting Procedure (RMS 17.374)
- Transport for NSW Environmental Incident Classification and Reporting (PR-105)

7.2 Document history

Date & Procedure No	Document owner	Approved by	Amendment notes
19/07/2021 EMF-13/PR-0001	Environment Manager Performance Improvement	Executive Director Environment and Sustainability	N/A

7.3 Feedback and help

For advice on using this Procedure please contact:

Environment Manager Performance Improvement

Email: envops@rms.nsw.gov.au

Phone: (02) 8849 2586.

Appendix A: Significant Incident escalation process

A1 Confirmation of a Significant Incident

Where an Environment Manager believes that a Significant Incident has occurred (see section 3.1.2 and Figure 3.2.1), they must immediately phone the relevant Environment Director. The Environment Director will consult with the Executive Director Environment and Sustainability, who will determine whether the incident will be considered a Significant Incident. Once a Significant Incident has been determined, the escalation process will commence in accordance with sections A2 and A3, below.

A2 Significant Incident information management

Following determination of a Significant Incident (see section A1, above), it is essential that there is fast, consistent and accurate reporting of information to the TfNSW senior management. As such, clear roles and responsibilities must be established in two key areas, as described in Table A2.

Table A2: Roles and responsibilities during a Significant Incident

Role	Who	Responsibilities
Information Controller	Environment Manager (or relevant Environment Officer in their absence)	• Liaise between the on-site TfNSW project management team and the Information Distributor (below) • Be the single point of contact to provide information and updates about the status of the Significant Incident to the Information Distributor
Information Distributor	Executive Director Environment and Sustainability (or relevant Environment Director in their absence)	• Identify the relevant members of the Executive and other senior management that will form the distribution group to be informed about the Significant Incident (see Table A3) • Consolidate information from the Information Controller, and distribute it to the distribution group • Provide key ongoing updates to the distribution group as it becomes available • Respond to enquiries from the distribution group, ensuring all members of the distribution group are copied into every response

A3 Parties to be notified

As described in Table A2, the Information Distributor must identify relevant TfNSW senior management from delivery and client divisions that will form the distribution group to be informed about the Significant Incident, including ongoing updates. Table A3 provides the key positions that must be included (at a minimum), depending on who is undertaking the activity. Depending on the type and location of the activity, there may be other areas of TfNSW that should be included in the distribution group – see section 3.2.2.

The distribution group should all be notified concurrently in a single email that a Significant Incident has occurred. The email should be sent by the Information Distributor within five minutes of making the determination of the Significant Incident.

Table A3: TfNSW distribution group to be notified during a Significant Incident

	Greater Sydney (Client)	Regional & Outer Metropolitan (Client)
Transport exec notification	• Secretary	• Secretary
SER exec notification	• Deputy Secretary, Safety Environment and Regulation	• Deputy Secretary, Safety Environment and Regulation
Client exec notification	• Deputy Secretary, Client Division • Executive Director, Community and Place • Relevant City Director (Harbour/River/Parkland)	• Deputy Secretary, Client Division • Executive Director, Community and Place • Relevant Regional Director
Delivery exec notification	• Deputy Secretary, relevant Delivery Area • Executive Director (or equivalent) of relevant Delivery Area (e.g. Head of Sydney Project Delivery, Head of Rail Delivery, Chief Operations Officer, Executive Director Planning and Programs) • Director of relevant Delivery Area (e.g. WSPO, GSPO, Parramatta Light Rail, Rail Infrastructure Delivery, Sydney Maintenance, Easing Sydney's Congestions etc.)	• Deputy Secretary, relevant Delivery Area • Executive Director (or equivalent) of relevant Delivery Area (e.g. Head of Regional Project Delivery, Executive Director Network and Assets) • Director of relevant Delivery Area (e.g. Regional Maintenance, NPO, SaWPO)
Project Team notification	• Project Director (or equivalent) of relevant Delivery Area • Senior Project Manager • Project Manager • Environment Manager	• Project Director (or equivalent) of relevant Delivery Area • Senior Project Manager • Project Manager • Environment Manager