

MANAGEMENT PLAN

Construction Environmental Management Plan
Sydney Metro West – Stations Package West

Issue Date: 29/05/2026

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PO Box K659
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11 June 2026

Ref: 251202 (c) CEMP (Rev 04)

Dear Ryan

RE: Sydney Metro West - Station Package West (SPW) - Construction Environment Management Plan (Rev 04) including Air Quality Management Procedure (Appendix J) and Flora and Fauna Management Procedure (Appendix K)

I refer to Sydney Metro's (SM) submission of the following document required by Condition C1 of the Sydney Metro West – Rail Infrastructure, Stations, Precincts and Operations Approval (SSI 22765520, 25 January 2023)

- Construction Environment Management Plan, Sydney Metro West - Station Package West Rev 04, dated 28 May 2026 (SMWSTSPW-GEA-SWD-EN-PLN-000001) including
 - Air Quality Management Procedure (Appendix J); and
 - Flora and Fauna Management Procedure (Appendix K)

It is noted that:

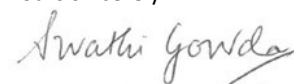
- The Construction Environment Management Plan (Rev 04) has been prepared by Gamuda (the SPW Contractor), to address the requirements of Conditions C1 of the Infrastructure Approval and Request for Further Information (RFI) from the Department of Planning, Housing and Infrastructure (DPHI), dated 13 May 2026.
- The Construction Environment Management Plan (CEMP) adopts the compliance framework and terminology (specifically, Environmental Event and Environmental Issue classification) established in the Sydney Metro Environmental Incident and Non-Compliance Reporting Procedure (EINCRP, Version 1.0 dated 1 December 2025), with references to non-conformances removed.
- Previous versions of the document have been reviewed and updated following comments from SM, the Environmental Representative and DPHI's RFI dated 13 May 2026 (Ref: SSI-22765520-PA-53).
- Appendix J of the CEMP includes the Air Quality Management Procedure, in accordance with Phase O of the Sydney Metro West Stage 3 Phasing Report (Revision 2.1, dated March 2026 – refer Tables 9 and 20).
- Appendix K of the CEMP includes the Flora and Fauna Management Procedure, in accordance with Phase O of the Sydney Metro West Stage 3 Phasing Report (Revision 2.1, dated March 2026 – refer Tables 9 and 20).

Following the above reviews, as the approved Environmental Representative for Sydney Metro West Stage 3 and as required by Conditions A33(d) and C4, I am satisfied that the Construction Environment Management Plan (Rev 04), Air Quality Management Procedure (Appendix J of CEMP, Rev 04) and the Flora and Fauna Management Procedure (Appendix K of CEMP, Rev 04) are consistent with requirements in or under the Approval (SSI 22765520).

On the basis of the above:

- The Construction Environment Management Plan (Rev 04) is endorsed and considered appropriate for submission to the Planning Secretary for their consideration for Approval; and
- The Air Quality Management Procedure (Appendix J of CEMP, Rev 04) and the Flora and Fauna Management Procedure (Appendix K of CEMP, Rev 04) are both endorsed and considered appropriate for implementation.

Yours sincerely



Swathi Gowda
Environmental Representative – Sydney Metro West Stage 3 – Stations Package West
CC: Ari Stypel

Document Details

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Document Authorisation

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DOCUMENT CONTROL

The current document version number and date of revision are shown in the document footer. All changes made to the Management Plan during its implementation on a live project are to be recorded in the amendment tables below.

Revision History

Revision	Date	Description of changes	Prepared by	Approved by
00	17/02/2026	Issued for SM, ER Review	K. Kerr	R. Petaccia
01	26/03/2026	Review and update in response to SM, ER comments.	K. Kerr	R. Petaccia
02	20/04/2026	Review and update in response to SM, ER comments. Gamuda IMS requirements removed per advice from DPHI (e.g. non-conformance).	K. Kerr	R. Petaccia
03	29/04/2026	Review and update in response to SM, ER comments.	K. Kerr	R. Petaccia
04	28/05/2026	Review and update in response to DPHI comments	J. Ambler	R. Petaccia

Management reviews

Review date	Details	Reviewed by

Controlled copies

Name	Position	Date	Revision

TERMS AND DEFINITIONS

Term	Definition
AA	Acoustic Advisor
AMP	Activity Management Plan
ASD	Adjacent Station Development
CCMS	Sydney Metro Construction Complaints Management System
CCP	Gamuda Community Communications Plan
CEMF	Sydney Metro Construction Environmental Management Framework Version 4.5 dated June 2022
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
CRS	Critical Risk Standards
CSSI	Critical State Significant Infrastructure
Deed	SPW Station Delivery Deed
(the) Department	NSW Department of Planning, Housing and Infrastructure
DPHI	NSW Department of Planning, Housing and Infrastructure
ECM	Environmental Control Maps
EERP	Environmental Emergency Response Procedure
EINCRP	Sydney Metro Environmental Incident and Non-Compliance Reporting Procedure Version 1.0 dated 1 December 2025
EiD	Environment in Design
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EMS	Environmental Management System
ER	Environmental Representative
ESCP	Erosion and Sediment Control Plans
Gamuda	Gamuda Engineering Australia
GBCA	Green Building Council Australia
GDOS IMS	GDOS Incident Management System
ICD	Interface control documents
IMS	(Gamuda's) Integrated Management System
IMT	Integrated Management Team
MEP	Mechanical, Electrical, Plumbing
OCCS	Sydney Metro West Overarching Community Communications Strategy Revision 6 dated 5 September 2025
OOHW	Out-of-Hours Work
PERP	Project Emergency Response Plan
Planning Approval	Applicable SSI-22765520 and SSI-10038 conditions as described in the SPW Station Delivery Deed
POEO Act	<i>Protection of the Environment Operations Act 1997 (NSW)</i>
(the Project)	Stations Package West
REMMs	Revised Environmental Management Measures
SEMP	Site Establishment Management Plans
SMART	Specific, Measurable, Achievable, Realistic and Timely

Term	Definition
SPW	Stations Package West
TfNSW	Transport for New South Wales

1 CEMP CONTEXT

1.1 Project Overview

The NSW Government is delivering Sydney Metro West, a new underground metro railway which will double rail capacity between Parramatta and the Sydney CBD, transforming Sydney for generations to come. Sydney Metro West will provide fast and reliable turn-up-and-go metro services with fully accessible stations, link new communities to rail services and support employment growth and housing supply.

The Stations Package West (SPW) project (hereafter referred to as SPW or the Project) forms part of the Sydney Metro West program and comprises the design and construction of five new metro stations delivered as a single integrated package. The bundling of the stations into a single SPW Stations Delivery Deed (Deed) is intended to optimise delivery efficiency, standardise design outcomes and support coordinated construction across multiple locations.

SPW includes the delivery of station structures, architectural finishes, building services and defined public domain works. Supply of station systems (including signalling, communications, traction power, platform screen doors and operational technology) is procured under separate contracts. Gamuda as the SPW Contractor is responsible for the construction of assets up to the defined physical interfaces with those systems and for coordinating construction readiness and access for systems installation.

This Construction Environmental Management Plan (CEMP) sets out the governance framework, management systems and mitigation measures to be implemented during the construction works delivered under the Deed.

In accordance with CoA C4, and the Phasing Report, this Plan was endorsed by the Environmental Representative (ER) on 30 April 2026 prior to submission to the Planning Secretary for approval no later than one month before the commencement of construction.

1.2 Project Location

The Project comprises five station sites:

- Westmead Metro Station
- North Strathfield Metro Station
- Burwood North Station
- The Bays Station
- Five Dock Station.

Each site is located within a highly urbanised environment and interfaces with established transport corridors, residential neighbourhoods, commercial precincts and public infrastructure. Construction will occur within defined site boundaries approved under the planning framework, which vary between locations due to site constraints, access requirements and interface conditions.

Indicative station locations and property boundaries are shown on the Project Locality Drawings (Figure 1-1).

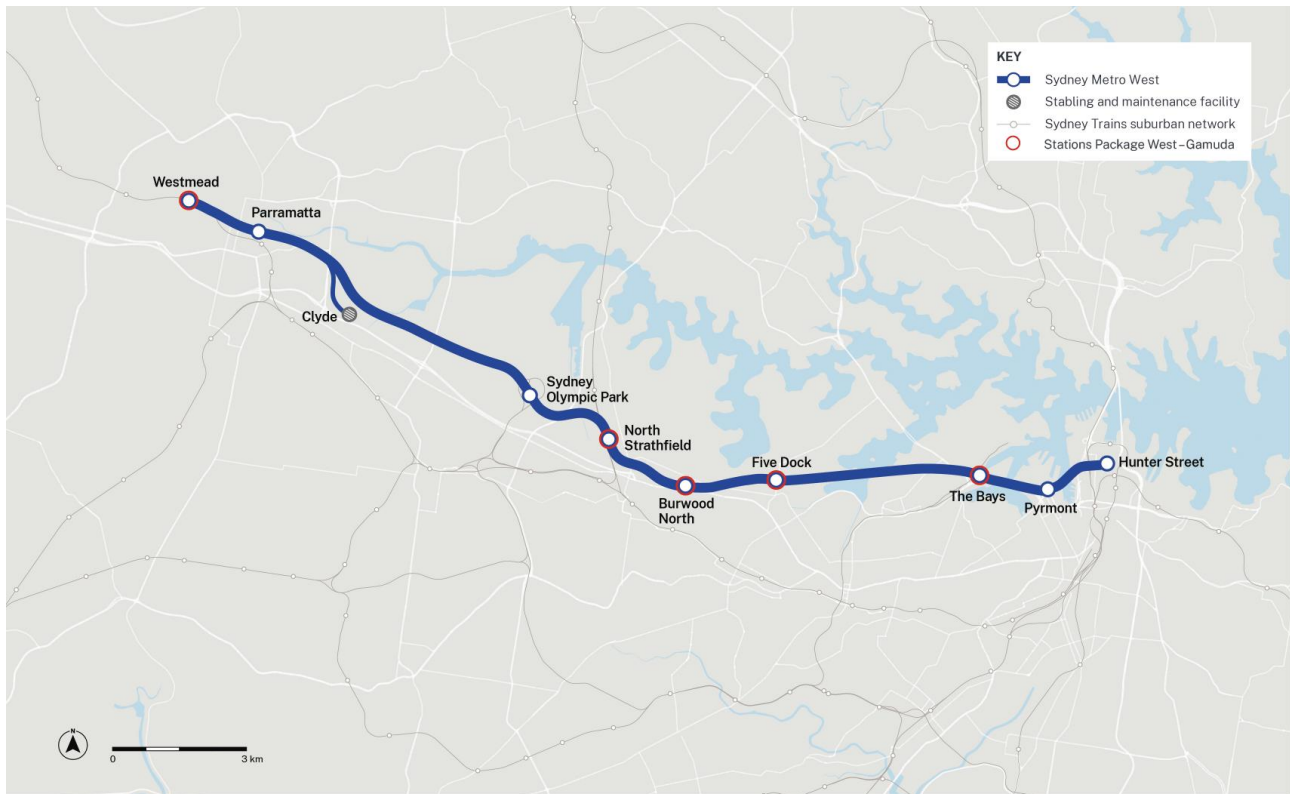


Figure 1-1: Project Overview

1.3 Planning Approval Context

1.3.1 Project Planning Approval

The Project is governed by two Critical State Significant Infrastructure (CSSI) approvals issued under Part 5.2 of the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act):

- Sydney Metro West – Concept and Stage 1 (SSI-10038, as modified)
 - This approval establishes the concept proposal and Stage 1 works for Sydney Metro West and includes Conditions of Approval (CoA), design parameters and development controls. Certain CoA continue to apply to SPW either directly or through the Deed.
- Sydney Metro West – Stations, Rail Infrastructure and Operations (SSI-22765520, as modified)
 - This approval authorises the construction and operation of the station works and associated precinct elements. It provides the primary planning and compliance framework for the SPW construction activities.

This Construction Environmental Management Plan (CEMP) has been prepared to satisfy the environmental management framework requirements of SSI-22765520 and applicable Conditions of Approval (CoA) from SSI-10038. It provides the overarching framework for SPW to be carried out generally in accordance with the Planning Approval CoA and documents listed therein as applicable to the works.

Appendix A identifies only those CoA, REMMS and CEMF requirements that directly govern the development, structure and approval requirements of this CEMP. The full set of applicable Planning Approval conditions is managed through the Project Compliance Obligations Register and Deed and other relevant SPW environmental management documentation.

Aspect-specific and activity-specific CoA are addressed within the relevant management plans, procedures and delivery documentation referenced throughout this CEMP.

1.3.2 Environmental Assessment Pathway

Environmental assessment supporting the Planning Approval was undertaken in accordance with the EP&A Act and associated statutory requirements, including preparation and exhibition of Environmental Impact Statements, Submissions Reports, and assessment of modifications.

This CEMP has been prepared to implement the environmental management and compliance obligations arising from the Planning Approval and supporting environmental assessment documentation. The CEMP does not alter, reinterpret or replace the legal effect of the Planning Approval issued under the EP&A Act.

1.3.3 Modification History

The Planning Approval governing the project have been amended since their original determinations:

- SSI-10038 has been modified on multiple occasions to reflect staged delivery, administrative changes, design refinements and other amendments.
- SSI-22765520 has also been modified to incorporate project development updates, staging and precinct refinements.

This CEMP reflects the most current versions of the Planning Approval as described in Table 1-1.

Table 1-1: Current Statutory Approval Baseline for this CEMP

Approval	Up to and including	Consolidated Approval
SSI-10038	Modification 6	SSI-10038 MOD 6 - Consolidated Approval issued 6 November 2024
SSI-22765520	Modification 3	SSI-22765520 MOD-3 - Consolidated Approval issued 19 December 2025

1.3.4 Scope Changes

Where a change in scope may be proposed (including but not limited to design and construction methodologies), the consistency of the proposed change will be assessed against the approved project in accordance with Section 5.25 of the EP&A Act. Proposed changes would be supported by appropriate environmental assessments.

The Sydney Metro Planning Manual (SM-21-00043765) provides guidance on the assessment process of project changes and includes a procedure that outlines whether a proposed project change is consistent with relevant existing planning approvals or whether a modification/new approval is required.

1.4 Purpose and Application of the CEMP

The purpose of this CEMP is to define the framework by which the environmental performance of the Project is managed during construction. This CEMP has been prepared to:

- Establish the Project's environmental management framework
- Describe the governance arrangements for environmental management
- Identify environmental risk areas relevant to construction works
- Outline compliance and reporting pathways
- Provide a consistent basis for environmental management across all station sites.

This CEMP is intended to support compliance with all relevant Planning Approval requirements, including the Revised Environmental Mitigation Measures (REMMS), and Sydney Metro

Construction Environmental Management Framework (CEMF) conditioned by the Planning Approval, that apply to the Phase O (Stations Package West) per the Sydney Metro West Stage 3 Phasing Report Version 2.1 scope of works, as described in Appendix A.

This CEMP applies to:

- All construction activities undertaken by Gamuda
- All temporary and permanent works delivered by Gamuda
- All personnel, subcontractors and suppliers engaged in Project works.

Deed arrangements clearly define environmental roles, responsibilities and compliance obligations, and personnel are provided with appropriate training and induction to support effective implementation.

This CEMP does not:

- Vary or replace the Planning Approval CoA
- Reinterpret statutory obligations
- Override Deed responsibility allocation.

1.5 Compliance Framework

1.5.1 Approval Requirements

The Project is delivered in accordance with the Planning Approval, and this CEMP has been prepared to implement environmental requirements for Phase O (Stations Package West) per the Sydney Metro West Stage 3 Phasing Report Version 2.1. This CEMP gives effect only to those obligations assigned to Stations Package West.

It is noted that only the following are relevant to the SPW works from the Sydney Metro West – Concept and Stage 1 (SSI-10038, as modified):

- Schedule 1 Project Description
- Schedule 2 Administrative Conditions, from which Sydney Metro retains responsibility for C-B2, C-B3, C-B4, C-B5, C-B6, and C-B10.

1.5.2 Legislative Framework

The Project is delivered in accordance with all applicable Commonwealth and New South Wales legislation. Statutory obligations are implemented through the CoA, this CEMP and its Sub-Plans and Construction Monitoring Programs, and Gamuda's Integrated Management System (IMS). A detailed register of applicable legislation, licences and other legal obligations is maintained separately in the Legal and Other Requirements Register (refer Appendix B) and is kept current throughout the works.

1.5.2.1 Environmental Protection Licence

The SPW construction scope, involving station fit out and surface works within completed station boxes, does not independently trigger a Schedule 1 scheduled activity under the *Protection of the Environment Operations Act 1997* (POEO Act). However, SPW will assume operational control of active water treatment infrastructure and licensed discharge points inherited from the Eastern Tunnelling Package (ETP), specifically the water treatment plant and Discharge Point 6 at The Bays.

To facilitate lawful continuity of discharge upon assuming operational control of the water treatment plant, Gamuda will obtain a non-scheduled activity Environment Protection Licence (EPL) for miscellaneous licensed discharge to waters. Upon issuance of the EPL, Gamuda will prepare and implement a standalone Pollution Incident Response Management Plan (PIRMP) in accordance with Part 5.7A of the POEO Act and CEMF Section 3.11.

Water discharge, monitoring and reporting obligations are detailed in the SPW Groundwater Management Plan and Soil and Water Management Plan. Compliance will be demonstrated through implementation of CoA performance criteria, approved monitoring program and CEMF governance processes.

1.5.3 Gamuda Environmental Management System

SPW works are delivered under the Gamuda Engineering Australia (Gamuda) corporate Environmental Management System (EMS), which forms part of the broader Integrated Management System (IMS) established in accordance with AS/NZS ISO 14001:2016. In accordance with Section 3.4(c) of the Sydney Metro Construction Environmental Management Framework (CEMF), the Principal Contractor is required to integrate applicable elements of its corporate EMS into this CEMP.

To satisfy the requirements of the Planning Approval and CEMF Sections 3.4(d)(xii) and 3.16(a) for incident and non-compliance management, this CEMP adopts the compliance framework and terminology established in the Sydney Metro Environmental Incident and Non-Compliance Reporting Procedure (EINCRP).

1.5.4 Standards, Guidelines and Technical Frameworks

In addition to statutory approvals and legislation, the Project is delivered in general accordance with or general reference to the following frameworks and guidance documents, as applicable:

- Sydney Metro Construction Environmental Management Framework (CEMF)
- Sydney Metro West Overarching Community Communications Strategy (OCCS)
- Environmental Management Plan Guideline – Guideline for Infrastructure Projects (DPE, 2020)
- Relevant Australian Standards where mandated by the Planning Approval

These frameworks and documents establish the processes, performance criteria, and technical requirements supporting implementation of the Conditions of Approval and applicable legislation. They do not override statutory requirements or the Planning Approval.

1.6 Staging and Phasing Context

1.6.1 Sydney Metro West Construction Phases

Sydney Metro West is being delivered through multiple major packages with each package operating under separate contracts and controls. The Sydney Metro West Stage 3 Phasing Report (Revision 2.1, dated March 2026) has been prepared by Sydney Metro and submitted to DPHI for information. The phasing arrangements were agreed to by DPHI on 2 April 2026. The Phasing Report outlines the current overall Planning approval and delivery strategy for Sydney Metro West, with the Project representing Phase O - Stations Package West associated with SSI-22765520 (refer Table 1-2).

Table 1-2: Sydney Metro West Phases

Planning Approval	Delivery Phase
Stage 1 (SSI 10038)	Phase A – Power Enabling Works
	Phase B1 – Central Tunnelling Early Works
	Phase B2 – Central Tunnelling Main Works
	Phase C1 – Parramatta, Westmead and Clyde Demolition Works
	Phase C2 – Parramatta and Clyde Archaeological Works
	Phase D – Greater Sydney Road Works
	Phase E – Existing Rail Corridor Enabling Works
	Phase F – Western Tunnelling
	Phase H1 – Westmead Utilities Installation and Relocation Works
	Phase H2 – Five Dock Overhead to Underground Relocation
	Phase I – Transitional Services
Stage 2 (SSI 19238057)	Phase J – North Strathfield Power Enabling Works
	Phase G1 – Preliminary Works
Stage 3 (SSI 22765520)	Phase G2 – Eastern Tunnelling Works
	Phase L – Rosehill Power Enabling Works
	Phase M – Trains, Systems, Maintenance & Operations (TSMO)
	Phase N – Linewidth
	Phase O – Stations Package West (this CEMP)
	Phase P – Hunter Street Station Package & Precinct
	Phase Q – Parramatta Integrated Station Development
	Phase R – Sydney Olympic Park Integrated Station Development
	Phase S – Pyrmont Integrated Station Development

1.6.2 Phase O - Stations Package West

SPW represents the station infrastructure delivery phase for the western section of Sydney Metro West. Construction staging varies by station and is influenced by:

- Site access milestones
- Interface sequencing requirements
- Third party constraints
- Land handover dates.

Environmental controls are implemented progressively as access to individual areas is granted.

1.7 Scope of the CEMP

1.7.1 Works covered by this CEMP

This CEMP applies to the design and construction activities undertaken by Gamuda in connection with the SPW including, but not necessarily limited to:

- Station delivery scope, including the design and construction of the following Sydney Metro West stations:
 - Westmead Metro Station
 - North Strathfield Metro Station
 - Burwood North Station

- Five Dock Station
- The Bays Station
- Core station works, including:
 - Internal station structural completion works, including secondary structural elements, permanent internal structures and finishing work
 - Architectural fit out and finishes
 - Building services installations
 - External station plaza and public domain
 - Electronic Ticketing System (ETS) Enabling Works
 - Third Party Works including
 - Local Area Works
 - Property Works
 - Utility Service Works.
- Temporary works, including:
 - Site establishment works
 - Hoardings
 - Access infrastructure
 - Acoustic enclosures
 - Utilities diversions
 - Laydown and material handling systems.
- Interface works, including those constructed by the Gamuda to support delivery by others, including:
 - Access facilitation
 - Protection works
 - Local pavements and services supporting other packages.
- Ancillary activities, including:
 - Spoil management
 - Site traffic control
 - Environmental controls
 - Surveys
 - Inspections
 - Construction logistics.

1.7.2 Exclusions and Interfaces

This CEMP does not apply to other Sydney Metro West construction phases or off-site manufacturing unrelated to station construction or where they are governed by separate approvals and management documentation.

The interface with other packages is governed by:

- The Project Collaboration Agreement (for Linewide and TSMO interfaces)
- The master interface deed
- Interface control documents
- Package interface specifications
- Possession and access provisions.

Environmental obligations operate only within the physical boundaries and responsibility allocations defined for SPW works.

1.7.2.1 Sustainability

In accordance with Concept CoA C-B7, the Project is required to target a minimum 5-Star Green Star rating (or equivalent level of performance). The administration, tracking, and verification of Project sustainability targets, design requirements, and water reuse strategies are governed independently through the Project's Sustainability Management Plan (SMP). The SMP is administered as a separate contractual deliverable and does not form part of the statutory compliance framework or operational controls established under this CEMP.

1.8 Project Delivery Strategy

1.8.1 Overview

The Project is delivered under a single integrated Deed covering multiple geographically dispersed sites. The delivery strategy is based on:

- Concurrent construction across stations
- Location-specific staging
- Defined role delineation between Contractors
- Formal interface management processes
- Progressive land access arrangements under Deed milestones.
- A Project collaboration agreement where interface with other project packages occurs.

Environmental management is embedded into construction planning through:

- Early risk identification and mitigation planning
- Integration of environmental controls into construction sequencing
- Formal interface coordination protocols
- Site-specific environmental management planning.

The delivery strategy prioritises:

- Compliance with statutory approvals
- Maintaining rail and road network continuity
- Minimising environmental and community disruption
- Program certainty.

1.8.2 Scope Summary by Station

Activities at each station follow a common delivery sequence based on completion of handed-over station structures delivered under preceding packages, with scope varying to suit site constraints, access arrangements and package interface requirements. Table 1-3 summarises the principal scope elements relevant to each station including key scope exclusions to be developed by others. Where relevant CEMP sub-plans also detail specific project element referenced in the EIS or Planning Approval CoA that are not being delivered by SPW.

Table 1-3: SPW site-based construction activities

Station	Station Structures & Architecture	Public Domain & Precinct	Temporary Works	Systems Interfaces (MEP & Comms)	Key Physical Design & Construction Exclusions
Westmead	Completion of station structures. Construction of new Metro Paid Concourse (min 4m clear height). Structural safeguarding for future break-through underground link (min 6m wide x 4m high). Structural support/connections for brownfield interfaces.	Roads, plazas (western, central & eastern), Local Area Works, Property Works, and Utility Service Works. Making good of existing footpaths.	Compounds, tower cranes, hoardings, access, and destressing of temporary ground anchors	Full MEP. Delivery of enabling infrastructure and defined interface equipment for systems integration. Rising main connection to primary groundwater sump.	Physical construction within the existing Sydney Trains station (Brownfield Works), regrading of Alexandra Avenue (by others), bus interchange, construction of the future underground interchange tunnel, and construction of the Adjacent Development itself, and public art.
North Strathfield	Completion of station box and buildings. Design and construction of structural support, permanent connections, and service continuity for the new northern footbridge (min 4.5m clear width).	Transport integration, plazas, Local Area Works, Property Works, and Utility Service Works.	Compounds, tower cranes, hoardings, and destressing of temporary ground anchors	Full MEP. Delivery of enabling infrastructure and defined interface equipment for systems integration.	Physical construction within the existing Sydney Trains station (Brownfield Works), construction of the new interchange footbridges crossing the live rail corridor, ticket gates, and public art.
Burwood North	Completion of station box, entries, and detailed excavation for underground spaces (e.g., footings, sumps, lift pits) outside handed-over tunnels.	Public domain integration, Local Area Works, Property Works, and Utility Service Works.	Compounds, tower cranes, access structures, and destressing of temporary ground anchors (where required).	Full MEP. Delivery of enabling infrastructure and defined interface equipment for systems integration.	Ticket gates, and public art.
Five Dock	Structural completion within cut-and-cover envelope, including detailed excavation for underground spaces outside handed-over tunnels.	Plazas, transport integration, Local Area Works, Property Works, and Utility Service Works.	Temporary retaining/support works, compounds, tower cranes, and destressing of temporary ground anchors	Full MEP. Delivery of enabling infrastructure and defined interface equipment for systems integration.	Physical provision of public art
The Bays	Station buildings, Linewide access shafts (base shaft and walls), and detailed excavation for underground spaces.	Roads (including Anzac St and Power Station St), shared paths, Local Area Works, Property Works, and Utility Service Works.	Protection zones, site compounds, tower cranes, and destressing of temporary ground anchors	Full MEP. Delivery of enabling infrastructure and defined interface equipment for systems integration.	Construction of the traction substation, and public art.

1.8.3 Construction Activities

Construction across the SPW sites follows a standardised "bottom-up" methodology that builds on the station boxes, shafts and tunnelling works delivered under previous packages. At a high level, the construction activities comprise:

- Site establishment:
 - Establishment of construction compounds, site offices and storage areas
 - Installation of hoardings, fencing and access control points
 - Establishment of site access routes for deliveries and workforce
 - Installation of temporary utilities including construction power, water and drainage
 - Installation of environmental controls prior to commencement of intrusive works
 - Establishment of laydown areas and internal logistics zones.
- Completion works within handed-over station boxes and structures from preceding packages including:
 - Localised trimming and preparation of base surfaces within structures
 - Construction of internal slabs, walls, stairs and lift cores, beams and columns
 - Installation of secondary structural elements and load-bearing works
 - Formation of openings, penetrations and voids for building services and access
 - Construction of permanent internal retaining and partition structures
 - Installation of waterproofing systems where specified
 - Construction of permanent structural elements within the handed-over envelope.
 - Destressing of existing ground anchors located between zero (0) to two (2) metres below the final finished surface level
 - Piling at The Bays
 - Installation of lifts & escalators
 - Earthing and bonding
- Above-ground station structures
 - Construction of concourse structures, entry buildings and ancillary structures
 - Installation of load-bearing steelwork and concrete elements
 - Construction of roof structures and station canopies
 - Installation of façades, cladding and glazing systems
 - Structural joins between new works and handed-over assets.
- Building Services installation
 - Installation of station building services within the permanent station works
 - Mechanical ventilation and air-conditioning systems
 - Fire services infrastructure and fire protection systems
 - Electrical distribution systems including switch rooms and power reticulation
 - Hydraulic systems including potable water, sewer and stormwater systems
 - Cable support systems and cable routes
 - Installation of plant and equipment within plant rooms
 - Fit out of risers, service corridors and communications spaces
 - Connection of services to permanent infrastructure as defined in the design.
 - Building Management and Control Systems (BMCS).
- Architectural fit-out
 - Installation of internal walls, linings and ceilings

- Flooring systems and finishes
- Installation of doors, glazing and joinery
- Fit-out of customer areas, staff facilities and back-of-house spaces
- Finishing works within paid and unpaid zones
- Installation of architectural fixtures and fittings.
- Public Domain and Precinct Works
 - Road works and pavement construction
 - Footpaths, plazas and access ways
 - Installation of street furniture and lighting
 - Landscaping and planting
 - Drainage works in public areas
 - Integration works with existing council and State assets
 - Reconstruction of kerbs, crossings and verge areas.
 - All utility services to be co-ordinated and installed
- Temporary works during construction
 - Installation and maintenance of temporary retaining work where required
 - Construction scaffolding and access platforms
 - Installation of tower cranes, construction hoists and temporary platforms
 - Temporary access roads and hardstands
 - Temporary drainage and sediment controls
 - Temporary traffic and pedestrian management measures
 - Temporary service diversions where required within the footprint.
- Completion and demobilisation
 - Removal of temporary works and compounds
 - Removal of tower cranes
 - Progressive site reinstatement
 - Completion of public domain finishes
 - Final cleaning and preparation for handover
 - Rectification of defects within SPW works
 - Demobilisation from completed areas.
 - Disconnect all temporary services and make good

1.8.4 Site Establishment and Low Impact Works

Low Impact Works (LIW) undertaken prior to approval of this CEMP were assessed and authorised in accordance with the Planning Approval. This CEMP does not authorise LIWs and applies to construction-phase activities only.

LIW that has commenced after the approval or endorsement of the this CEMP is considered construction with the approval or endorsement of that CEMP. Where LIW has already commenced, this is considered to remain as LIW and is managed in accordance with the framework under which it commenced.

1.8.5 Ancillary Works and Facilities

Ancillary works and facilities may include (but are not limited to):

- Office and amenities compounds

- Construction compounds
- Materials storage compound and stockpile areas
- Maintenance workshops
- Parking facilities
- Associated access roads, haul routes, fencing and hoarding
- Temporary utilities and services
- Noise screening and barriers
- Temporary traffic and transport facilities.

Ancillary facilities will be assessed, permitted, and used in accordance with the framework established under CoA A22 to A26.

Pursuant to the exclusions established under Condition A22, a separate Site Establishment Management Plan (SEMP) is not required for ancillary facilities that are considered within this approved CEMP, or for those established under Condition A24. The requirement to prepare a SEMP will only be triggered where a proposed ancillary facility falls outside these specific statutory exemptions.

2 PROJECT ENVIRONMENTAL MANAGEMENT SYSTEM

The Project Environmental Management System (EMS) establishes the statutory and contractual framework for environmental management during the delivery of the SPW works. It operates in parallel with Gamuda Engineering Australia's (Gamuda's) corporate IMS, as described in Section 1.5.3 of this CEMP.

The EMS establishes how the IMS is applied at Project level for consistent, systematic, and compliant application with the Planning Approval, the Sydney Metro CEMF and Deed requirements.

The Project EMS defines the governance structure, responsibilities, procedures and controls used to identify, manage and monitor environmental risks during construction. It facilitates the translation of environmental obligations into site-level controls for consistent, systematic, and compliant application of the Planning Approval and the Sydney Metro CEMF. It further supports the demonstration of statutory compliance through verified documentation, inspections, reporting and independent review.

To maintain the strict boundary between statutory obligations and independent corporate systems, the Project EMS integrates:

- Statutory and Planning Approval obligations, including all CoA and Revised Environmental Management Measures (REMMs) listed in CoA A1.
- Sydney Metro requirements and frameworks, including the CEMF.
- Project-specific policies, management plans, CEMP Sub-plans, Construction Monitoring Programs and environmental control tools.

Environmental management is delivered through a controlled hierarchy of planning approvals, management plans, sub-plans and monitoring programs that collectively form the Project's environmental governance framework.

Figure 2-1 illustrates how this CEMP and related environmental documents fit within the broader Project document control structure and align with the Planning Approval and Deed governance systems.

2.1 Environmental Policy

Gamuda will implement the Project specific Environmental Policy for SPW works (refer Appendix C). The policy establishes commitments to:

- Comply with applicable environmental legislation, approvals and other requirements
- Prevent pollution and minimise adverse environmental impacts through effective planning and operational controls
- Apply a risk-based approach to environmental management
- Provide appropriate resources, training and competence
- Monitor performance, report, and implement corrective actions
- Continually improve environmental performance and the effectiveness of the EMS.

The Environmental Policy is communicated to workers and subcontractors through induction and ongoing project communications.

Project Plans			
Construction Environmental Management Plan & Procedures	Overarching Community Communications Strategy	Overarching Construction Traffic Management Plan	Sustainability Management Plan
• Legal and Other Obligation Register • Environmental risk and aspects register • Environmental Emergency Response Procedure • Weekly Environment and Sustainability inspection • Environmental Hold Points • Environmental Control Maps • Air Quality Management Procedure • Flora and Fauna Management Procedure	• Community Communications Plan ▪ Site Specific Community Communications Plan • Community Benefits Plan(s) • Overarching Small Business Owners Engagement Plan(s) • Complaints Register	• Site Specific CTMPs • Construction Parking and Access Strategies (CPAS) • Heavy Vehicle Local Road (HVLR) approval (if required) • Road Safety Audits	• Construction Water Reuse Strategy • Carbon and Energy Management Plan
CEMP Sub-Plans and Monitoring Programs			
• Noise and Vibration Management Sub-Plan (C5(a)) ▪ Sydney Metro Out of Hours Work Protocol ▪ Construction Noise and Vibration Monitoring Program • Heritage (Non-Aboriginal and Aboriginal) Management Sub-Plan (C5(b)) ▪ Sydney Metro Unexpected Heritage Finds Procedure • Visual Amenity Management Sub-Plan • Soil and Water Management Sub-Plan (incl. Contamination) (C5(c)) ▪ Acid Sulfate Soils Management Procedure ▪ Spill Response Protocol ▪ Surface Water Quality Monitoring Program ▪ Unexpected Contamination Finds Procedure • Groundwater Management Sub-Plan ▪ Groundwater Monitoring Program • Waste Management Sub-Plan ▪ Spoil Management and Waste Classification Procedures			

Figure 2-1: Document Map

2.2 Construction Environmental Management Plan

The CEMP provides the overarching framework for environmental management during construction and is prepared in accordance with CoA C1 of the Planning Approval and the Sydney Metro CEMF. It governs the preparation, implementation and review of all environmental Sub-Plans and Construction Monitoring Programs required under the Planning Approval.

This CEMP incorporates:

- Approval obligations and compliance requirements
- Environmental risk management approach
- Performance objectives and targets
- Governance arrangements and responsibilities
- Monitoring, reporting, and the management of statutory Non-Compliances
- Document control and record management.

The CEMP gives effect to the Planning Approval but does not alter or reinterpret statutory obligations. Where an inconsistency exists between this document and a CoA, the CoA prevails.

2.3 Construction Environmental Management Sub-Plans

Construction environmental Sub-Plans are prepared where required by the Planning Approval, Phasing Report, the Sydney Metro CEMF, or the Project's environmental risk assessment.

Under CoA C1 of the Planning Approval, this CEMP and its Sub-Plans must be prepared in accordance with the CEMF and must detail how the environmental performance outcomes, commitments and mitigation measures specified in the documents listed in CoA A1 will be implemented and achieved during construction.

The CEMF establishes Sydney Metro's standard suite of issue specific environmental Sub-Plans that is subject to the scope and scale of works. Depending on the risk associated with environmental issues it may be appropriate to remove the need for a Sub-Plan or replace it with a procedure as part of the CEMP.

Risk assessments have been completed for SPW works (refer to the Phasing Report, and Section 5 and Appendix D of this Plan) in consultation with Sydney Metro and the ER, and the Sub-Plans and Procedures in Table 2-1 have been identified as being required.

Table 2-1: CEMP Sub-Plan and Procedure Requirement Analysis

CEMF issue	CoA requirement	Phasing Report Inherent Risk Rating	CEMP Document	Phasing Report Residual Risk Rating	Document Approval Pathway
Noise and vibration management	C5(a)	High	Sub-Plan	Medium	DPHI Approval
Heritage management	C5(b)	High	Sub-Plan	Medium	DPHI Approval
Groundwater management	-	Medium	Sub-Plan	Medium	ER Endorsement
Flora and fauna management	-	Medium	Procedure	Low	ER Endorsement
Visual amenity management	-	High	Sub-Plan	Medium	DPHI Approval
Air quality management	-	Medium	Procedure	Low	ER Endorsement

CEMF issue	CoA requirement	Phasing Report Inherent Risk Rating	CEMP Document	Phasing Report Residual Risk Rating	Document Approval Pathway
Soil and water management (including Contamination)	C5(c)*	Medium	Sub-Plan	Medium	ER Endorsement
Waste management (including Spoil)	-	Medium	Sub-Plan	Low	ER Endorsement

*Note: CoA C5(c) requires the preparation of Contamination Management Plan in consultation with Sydney Olympic Park Authority (SOPA). Works at SOP are not relevant to the SPW scope.

Construction must not commence until the CEMP and Sub-Plans have been approved by DPHI or endorsed by the ER (whichever is applicable as detailed Table 2-1).

2.4 Monitoring Programs

Construction Monitoring Programs are prepared where mandated by Condition C13 of the Planning Approval, the Sydney Metro CEMF, and the Project Phasing Report.

In accordance with CoA C19, construction must not commence until the applicable monitoring programs (refer Table 2-2) are approved or endorsed (whichever is applicable) and all relevant baseline data for the specific construction activity has been collected, unless otherwise agreed with the Planning Secretary.

Table 2-2: Construction Monitoring Program

Requirement	Required Construction Monitoring Program
CoA C13(a)	Noise and Vibration

In addition to the C13 program above, the Project implements water monitoring to satisfy the Sydney Metro CEMF, and the statutory governance arrangements established in the approved Phasing Report. These monitoring programs (refer Table 2-3) require Environmental Representative (ER) endorsement prior to implementation. As they are not classified as Construction Monitoring Programs under CoA C13, they do not trigger the specific baseline data collection hold-point requirements of CoA C19.

Table 2-3: CEMF and Phasing Report Monitoring Programs

Requirement	Required Construction Monitoring Program
CEMF-GW1 and Phasing Report	Groundwater Monitoring Program
CEMF-SSWQ6 and Phasing Report	Surface Water Monitoring Program

2.5 Stakeholder Consultation and Endorsement

Consultation, endorsement and approval requirements for the CEMP, Sub-plans and the Construction Noise and Vibration Monitoring Program are set out in CoA C1–C8 and C13–C17 of the Planning Approval and Phasing Report.

During preparation:

- The Noise and Vibration and Heritage (Non-Aboriginal and Aboriginal) Sub-plans will be prepared in consultation with the relevant government agencies identified in CoA C5(a)–(b).
- The Construction Noise and Vibration Monitoring Program will be prepared in consultation with the EPA, Place Management NSW (in respect of The Bays) and the relevant council(s) in

accordance with CoA C13(a). Sydney Olympic Park Authority (SOPA) is not applicable to the SPW scope.

For consistency and to improve overall environmental outcomes, external distribution for consultation of the Sub-Plans and Construction Monitoring Programs will be undertaken by the Project following initial Sydney Metro, Acoustic Advisor (AA) (where relevant) and ER reviews. Feedback received from relevant external parties during the consultation process will be reviewed and considered by the Project. To satisfy the requirements of CoA C5 and A6, where a government agency's request or recommendation is not adopted, the Project will document the outstanding issues and provide justification to the Environmental Representative (ER) or Planning Secretary (whichever is applicable) as to why the request was not included.

Evidence of consultation undertaken will be documented and submitted to the ER or Planning Secretary as required, in accordance with the strict evidence requirements of CoA A6.

Following consultation, the CEMP, all Sub-Plans and the Construction Noise and Vibration Monitoring Program must:

- Be endorsed by the ER in accordance with CoA C2–C4, C7–C8 and C17,
- For noise and vibration documents, be endorsed by the AA in accordance with CoA A39(e),
- For the Noise and Vibration Construction Monitoring Program, be developed in consultation with the AA to meet the requirements of CoA C15.

The endorsed CEMP, Sub-Plans and the Construction Monitoring Program must then be submitted to the Planning Secretary for approval no later than one month before the commencement of construction (or the relevant phase), in accordance with CoA C2–C4, C7 and C16, unless expressly nominated by the Planning Secretary to be ER-endorsed only.

Where consultation is required under the Planning Approval, engagement will be documented, and evidence of the consultation undertaken will be provided in accordance with CoA A6 (a)-(e) including:

- Documentation of the engagement with the party(s) identified in the condition of approval that has occurred before submitting the document for approval
- A log of the dates of engagement or attempted engagement with the identified party(s) and a summary of the issues raised by it
- Documentation of the follow-up with the identified party(s) where feedback has not been provided to confirm whether the party(s) has feedback or has failed to provide feedback after repeated requests,
- An outline of the issues raised by the identified party(s) and how they have been addressed; and
- A description of the outstanding issues raised by the identified party(s) and the reasons why they have not been addressed.

Table 2-4 summarises, for the SPW scope, the government agencies that require consultation for each CEMP Sub-plan and the Construction Noise and Vibration Monitoring Program in accordance with CoA C5 and C13.

Table 2-4: Stakeholder Consultation Table

Plan, Strategy or Document	Source	Site					Summary
	CoA	Westmead	North Strathfield	Burwood North	Five Dock	The Bays	
CEMP Sub-Plans							
Noise and Vibration	C5(a)	Cumberland City Council	City of Canada Bay Council	Burwood Council City of Canada Bay Council	City of Canada Bay Council	Place Management NSW Port Authority of NSW Inner West Council	Burwood Council Cumberland City Council City of Canada Bay Council Place Management NSW Port Authority of NSW Inner West Council
Heritage (Non-Aboriginal and Aboriginal)	C5(b)	Heritage NSW Cumberland City Council	Heritage NSW City of Canada Bay Council	Heritage NSW Burwood Council City of Canada Bay Council	Heritage NSW City of Canada Bay Council	Heritage NSW Place Management NSW Port Authority of NSW Inner West Council	Heritage NSW Burwood Council Cumberland City Council City of Canada Bay Council Place Management NSW Port Authority of NSW Inner West Council
Construction Monitoring Programs							
Noise and Vibration	C13(a)	EPA Cumberland City Council	EPA City of Canada Bay Council	EPA Burwood Council City of Canada Bay Council	EPA City of Canada Bay Council	EPA Place Management NSW Inner West Council	EPA Burwood Council Cumberland City Council City of Canada Bay Council Place Management NSW Inner West Council

2.6 Environment in Design

Environment in Design (EiD) facilitates the integration of environmental requirements, including those from the Planning Approval and the documents listed in CoA A1, into design deliverables.

"The integration of environmental requirements into the design process is administered through the Project's overarching design frameworks rather than this CEMP.

The specific processes for design input, design output, verification, change control, and the tracking of environmental compliance commitments are detailed in the Project Design Management Plan and managed through the Project's formal requirements management system.

3 PROJECT OBJECTIVES AND TARGETS

Environmental objectives and targets have been established to support compliance with the Planning Approval, facilitate effective implementation of REMMs, and drive continual improvement during construction. These objectives align with the Sydney Metro CEMF and the environmental management obligations applicable to the SPW works.

In accordance with CoA C6(d), these objectives and targets have been developed using SMART principles (Specific, Measurable, Achievable, Realistic and Timely) to facilitate the effective management of environmental risks during construction. Performance against these objectives will be monitored through inspections, audits, and compliance reporting.

Table 3-1 identifies the environmental objectives, performance targets, and key measurement tools that provide a consistent basis for assessing environmental performance across all SPW construction sites.

Table 3-1: Objectives and Targets

Objective	Target	Measurement Tool
Deliver the Project in accordance with environmental approvals	Demonstrate compliance with applicable Planning Approval CoA	Compliance reporting, audits, management reviews
Implement approval-specific mitigation measures	All mitigation measures tracked and implemented	Compliance tracking matrix, audits
Comply with applicable legal requirements	Demonstrated compliance with statutory and regulatory obligations	Audits, compliance reporting, management reviews
Engage with the community and manage complaints	Provide timely information and manage complaints in accordance with approved communication plans	Complaints register, audits, compliance reporting
Continually improve environmental performance	Implement training programs and capture lessons learnt from incidents	Audits, training records, management reviews

4 ENVIRONMENTAL GOVERNANCE, ROLES AND RESPONSIBILITIES

4.1 Governance Structure

Environmental governance for the SPW works is defined by the Planning Approval and the Sydney Metro CEMF. The governance model facilitates:

- Clear accountability for the preparation, implementation and maintenance of the CEMP, Sub-Plans and monitoring programs
- Independent oversight by the ER and AA
- Transparent consultation, escalation and approval pathways between the Gamuda, Sydney Metro, ER/AA, external agencies and the Planning Secretary.

Figure 4-1 illustrates the Project governance chain and key roles and responsibilities.

Planning Secretary
• Approves environmental management documents required by the CoAs and Phasing Report (including the CEMP, CEMP Sub-plans and the Construction Monitoring Program), as relevant. • Considers endorsement advice from the ER (and AA for noise & vibration matters). • May issue directions or require amendments under the EP&A Act / Planning Approval.
Sydney Metro
• Holds overall project approval and is the proponent under the Planning Approval. • Appoints and manages the ER and AA roles. • Reviews SPW Contractor submissions before forwarding to the Planning Secretary (where Secretary-approval is required). • Provides project-wide requirements (CEMF, OCCS, planning manual etc.) and oversees Contractor environmental performance.
Environmental Representative
• Independent advisor to the Planning Secretary. • Endorses the CEMP, all CEMP Sub-plans and required Monitoring Programs before they are submitted. • Monitors compliance during construction via inspections, audits and review of reporting. • May direct the Contractor to cease works where Conditions of Approval are not being met and escalates significant non-compliances to Sydney Metro / the Planning Secretary.
Acoustic Advisor
• Reviews all noise and vibration components of the CEMP and CEMP Sub-plans. • Reviews and endorses all relevant noise and vibration documents in accordance with CoA A39(e). • Endorses the Construction Noise & Vibration Monitoring Program before ER endorsement / submission. • Provides independent technical advice on noise and vibration issues during construction.
SPW Contractor
• Implements all environmental obligations allocated to the Contractor under the Planning Approval and Contract. • Prepares the CEMP, CEMP Sub-plans and Monitoring Programs in accordance with the CoAs and CEMF. • Integrates environmental requirements into design, construction planning, procurement and day-to-day delivery. • Manages incidents, reporting, record-keeping and environmental risk controls, and undertakes required consultation under Conditions C5 and C13 (councils, EPA, Place Management NSW, etc.).

Figure 4-1: SPW Organisational Environmental Governance Structure

4.2 Sydney Metro

Transport for New South Wales (TfNSW) is the Proponent with ultimate responsibility for compliance with the Planning Approval. A specialised delivery office, Sydney Metro, has been established as part of TfNSW to manage the planning, procurement, and delivery of the Sydney Metro Network.

The Sydney Metro Environment and Sustainability team will facilitate compliance with the Project Planning Approval obligations held by TfNSW, as set out in the Phasing Report to be prepared in accordance with CoA A15 (and updated under CoA A19, if required).

4.3 Gamuda Roles

4.3.1 Project Leadership and Discipline Managers

Environmental management under this CEMP is delivered through the Gamuda's Integrated Management Team (IMT) (refer Figure 4-2).

Key environmental responsibilities for Project leadership and discipline managers are provided in Table 4-1.

Table 4-1: SPW Project Leadership and Discipline Manager Responsibilities and Authorities

Role	Responsibilities and Authorities relevant to this CEMP
Project Director	• Holds ultimate accountability for SPW environmental compliance under the Deed and CoA. • Facilitates the provision of sufficient resources, governance structures and competencies to implement this CEMP. • Approves environmental strategies, escalations and responses to significant incidents. • Authorises final submissions of the CEMP, Sub-Plans and Construction Monitoring Programs to Sydney Metro following internal review.
Deputy Project Director	• Supports the Project Director in environmental governance and compliance oversight. • Facilitates the integration of environmental constraints into delivery sequencing and access planning. • Acts as an escalation point for environmental incidents, non-compliances and regulator issues.
Construction Director	• Facilitates the incorporation of environmental mitigation and monitoring requirements into construction methodologies. • Provides direction to Station Managers to implement this CEMP and Sub-Plans within construction activities. • Leads resolution of construction-related environmental issues that affect program, safety or compliance.
Station Managers	• Implement daily environmental controls at site level in accordance with the CEMP and Sub-Plans. • Manage subcontractor activities to support compliance with the requirements of this CEMP and approved Sub-Plans. • Facilitate environmental inspections, monitoring and verification activities, including ER/AA access. • Initiate and support incident containment, investigation and corrective actions.
Design and Engineering Manager	• Facilitates the incorporation of environmental requirements into designs, including but not limited to heritage, noise, water, contamination and sustainability provisions. • Coordinates design changes to align with consistency assessment processes under the EP&A Act and the Conditions of Approval.
Integration and Interface Manager	• Manages coordination between SPW and interfacing packages to support the identification and control of environmental risks from interfaces. • Facilitates the inclusion of environmental constraints and obligations in interface control documents, staging and access planning.

Role	Responsibilities and Authorities relevant to this CEMP
Planning Manager	- Integrates environmental constraints, hold points, and statutory document review timeframes (including ER and DPHI approvals) into the Station Contractor's Delivery Program. - Aligns construction staging, sequencing, and scheduling to support the practical implementation of environmental mitigation measures on site. - Ensures sufficient time is allocated within the overall project schedule for required community notifications, out-of-hours work (OOHW) planning, environmental monitoring, and consultation activities.
Stakeholder and Community Engagement Manager	- Implements community information, complaints management and stakeholder engagement processes in accordance with the approved Overarching Community Communications Strategy (OCCS). - Coordinates timely responses to complaints and community issues to support mitigation of construction-related impacts. - Coordinates notifications and communications associated with construction activities and changes to works.
Commercial Director	- Facilitates the inclusion of applicable environmental requirements into commercial and subcontractor arrangements. - Manages commercial risks arising from environmental controls, mitigation measures or program constraints.
WHS Manager	- Supports the coordination of environmental controls with site safety and work planning processes where risks overlap. - Coordinates the incorporation of environmental requirements into safe work planning and site controls. - Supports the investigation of incidents involving both environmental and safety aspects.
People and Culture Manager	- Supports the resourcing of personnel to fulfil environmental responsibilities. - Supports the delivery of environmental training, inductions and workforce awareness programs. - Supports workforce performance management processes relating to environmental responsibilities and work practices.
Logistics and HVNL Manager	- Implements environmental controls relating to construction traffic, haulage, deliveries and heavy vehicle movements. - Facilitates the implementation of traffic-related environmental controls (such as noise and access) required by this CEMP.
Site Engineers / Superintendents	- Implement controls on the ground including erosion and sediment control, waste management, heritage protection measures and noise minimisation. - Support environmental inspections, monitoring and corrective actions. - Communicate environmental requirements to the workforce through pre-start briefings and toolbox talks.

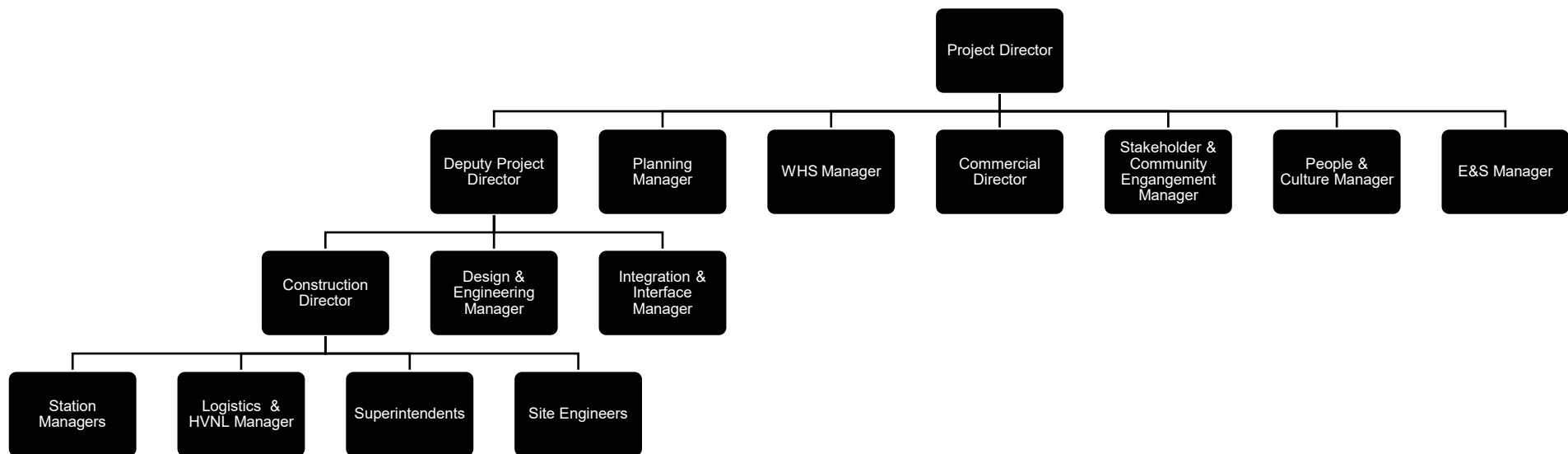


Figure 4-2: SPW Project Leadership and Discipline Manager Organisational Structure

4.3.2 Environment and Sustainability Team

Figure 4-3 presents the indicative Gamuda Environment and Sustainability team organisational structure for SPW delivery.



Figure 4-3: Indicative SPW Project Environment Team Organisational Structure

Table 4-2 outlines the Gamuda Environment and Sustainability team members lines of responsibility and communication; resourcing in terms of full-time equivalents (FTE), minimum skill levels and their wider interface with the Gamuda Project team.

Table 4-2: Project Roles, Responsibilities and Authorities

Role	Responsibilities and Authorities relevant to this CEMP
Environment and Sustainability Manager	
Authority	- Work collaboratively with the Project IMT, Green Building Council Australia (GBCA) and Sydney Metro to facilitate positive and best-for-project environment and sustainability outcomes - Liaise directly with the ER and AA as appropriate to facilitate any environmental management requirements, including those identified within the planning approvals - Authorised to endorse documentation for environment and sustainability management and all approvals and licenses before submission to Sydney Metro - Authorised to stop work in the event of potential environmental harm - Resolve escalated environmental matters which cannot be resolved by the Environment Operations and Approvals Lead and the Project team.
Responsibility and Decision Making	- Oversees the effective development, implementation and maintenance of the CEMP at the Project level - Primary point of contact on environmental and sustainability matters to Sydney Metro, the AA and ER

Role	Responsibilities and Authorities relevant to this CEMP
Lines of Communication and Delegation	- Member of the project's IMT along with construction, design and commercial - Reports directly to the Project Director - Manages environmental approvals, operations and sustainability disciplines
Minimum Skill Level	- Tertiary qualification in environmental engineering/science/management or equivalent - Minimum 15 years' experience post-qualification in the provision of environment management advice in design and construction - ISO14001 Lead Auditor qualified and Green Star Accredited Professional.
Environment Operations and Approvals Lead	
Authority	- Authorised to endorse documentation for environment management and approvals before submission to Sydney Metro, and obtain licenses and approvals for works - Authorised to develop environmental approval documents to meet Project requirements - Liaises directly with the ER and AA as appropriate to facilitate any environmental management requirements, including those identified within the Planning Approval.
Responsibility and Decision Making	- Develops and maintains the CEMP and sub plans to align with evolving Project requirements, and coordinates internal audits to support compliance - Develops consistency assessments and other post-approval documents - Supports the project team to meet their environmental obligations - Coordinates the recording of non-compliances and environmental incidents, and the provision of written reports to Sydney Metro within 24 hours - Maintains an ongoing relationship with the ER and AA by coordinating site inspections and maintaining open communication regarding on-site activities.
Lines of Communication and Delegation	- Reports to the Environment and Sustainability Manager - Liaises with Sydney Metro, AA agencies and local councils during the development of the CEMP - Liaises with the ER, AA and / or Planning Secretary on environmental issues during delivery, including written notifications of non-compliances as defined by the CoA.
Minimum Skill Level	- Tertiary qualification in environmental engineering/science/management or equivalent - Minimum 10 years' experience post qualification, with extensive experience in the delivery of pre-construction approvals on major infrastructure projects - Green Star Accredited Professional preferred.
Senior Environment Advisor / Environment Advisor	
Authority	- Liaises with the stakeholders to confirm the nature of the corrective action required - Monitors and supports the maintenance of environmental controls, materials and equipment - Maintains an ongoing relationship with the ER and AA by coordinating site inspections and maintaining open communication regarding on-site activities.
Responsibility and Decision Making	- Facilitates the acquisition of relevant licences, approvals and permits - Supports the effective implementation of the CEMP, Sub-Plans and Construction Monitoring Programs - Develops and delivers appropriate environmental induction and training to personnel on site to support workforce awareness of environmental responsibilities - Coordinates the collection and maintenance of environmental records and files - Coordinates the recording of non-compliances and environmental incidents, and the provision of written reports to Sydney Metro and Environment and Sustainability Manager within 24 hours - Liaises with the stakeholders to confirm the nature of the corrective action required - Monitors and supports the maintenance of environmental controls, materials and equipment - Maintains an ongoing relationship with the ER and AA by coordinating site inspections and maintaining open communication regarding on-site activities.
Lines of Communication and Delegation	- Reports to the Environment Operations and Approvals Manager - Liaises with Sydney Metro, the ER and AA on environmental issues, including written notification of non-compliances (incidents, emergencies or deviations from the CEMP).

Role	Responsibilities and Authorities relevant to this CEMP
Minimum Skill Level	- Tertiary qualification in environmental science, engineering or equivalent - Erosion and sediment control training preferred.
Approvals Function	
Authority	- Supports preparation, review and endorsement of environmental approval documentation prior to submission - Interfaces with regulators, ER and AA on approvals-related matters - Authorised to coordinate approval submissions, responses to regulator queries and provision of supporting information - Supports obtaining licences, permits and approvals required for construction activities
Responsibility and Decision Making	- Prepares and coordinates environmental approval documentation, including consistency assessments, management plans and supporting technical inputs - Tracks approval requirements, conditions and obligations relevant to this CEMP and construction activities - Coordinates inputs from design, construction and specialist disciplines to support approval submissions - Monitors approval status, conditions and commitments to support the implementation of requirements in delivery - Supports compliance with approval-related requirements during delivery, including responses to regulator and ER/AA requests - Maintains approval registers, trackers and supporting documentation
Lines of Communication	- Reports to the Environment Operations and Approvals Lead - Liaises with Sydney Metro, the ER and AA on environmental matters, including written notification of non-compliances (incidents, emergencies or deviations from the CEMP) - Interfaces with design, construction and project controls teams to align approvals with delivery
Minimum Skill Level	- Tertiary qualification in environmental science, planning, engineering or equivalent - Experience in preparation and coordination of environmental approvals on infrastructure projects - Understanding of planning approval frameworks, post-approval requirements and regulator interface processes
Sustainability Function	
Authority	- Provides direction on sustainability requirements relevant to this CEMP and the project approval - Interfaces with Sydney Metro and project stakeholders on sustainability matters required to support environmental management and compliance
Responsibility and Decision Making	- Implements sustainability requirements identified in this CEMP and relevant project approval conditions - Supports integration of sustainability measures into construction activities where required to meet environmental management and approval requirements - Monitors and reports on sustainability aspects required under this CEMP and associated management plans - Maintains records and documentation required to demonstrate compliance with CEMP and approval requirements - Supports the project team to meet sustainability-related obligations arising from environmental management requirements - Coordinates with the Sustainability Management Plan for delivery of broader sustainability objectives, initiatives and reporting not required for CEMP or approval compliance
Lines of Communication	- Reports to the Environment and Sustainability Manager - Interfaces with construction, design and environmental teams to support implementation of sustainability requirements under this CEMP
Minimum Skill Level	Refer Sustainability Management Plan for detailed role requirements.

4.3.3 Resources and Specialist Support

Gamuda will maintain sufficient environmental resources and specialist capability to implement this CEMP, its Sub-plans and Monitoring Programs across all stations and construction stages, in accordance with the Planning Approval and the Sydney Metro CEMF.

To support delivery of the environmental requirements of the Project, Gamuda will engage or retain access to appropriately qualified technical specialists where required by the Planning Approval, CEMF or Project risk profile, including:

- Noise and vibration specialists to support preparation and implementation of the Noise and Vibration CEMP Sub-plan, Construction Noise and Vibration Monitoring Program and any applicable DNVIS, undertake assessment and modelling, advise on mitigation measures, and assist in interpreting monitoring results, in coordination with the AA
- Contamination and waste specialists to provide advice on contaminated land, spoil classification, waste management and remediation requirements, including implementation of Unexpected Contamination Finds (UXF) procedures, and to support implementation of the relevant contamination and waste management sub-plans
- Heritage specialists (Aboriginal and non-Aboriginal) to support implementation of heritage management measures, archaeological requirements, unexpected finds procedures and regulatory interface
- Ecology, biodiversity and landscape specialists (as required) to support implementation of flora and fauna management measures, tree protection and biodiversity requirements in accordance with the Planning Approval and Sydney Metro CEMF requirements
- Environmental monitoring and laboratory service providers to undertake NATA-accredited sampling and analysis, and supply, calibrate and maintain monitoring equipment required under the Construction Monitoring Program and CEMP sub-plans.

The Environment and Sustainability Manager is responsible for identifying specialist requirements, managing specialist engagement and facilitating the alignment of scopes of service with the Planning Approval, the Sydney Metro CEMF, this CEMP and its associated Sub-Plans and Construction Monitoring Programs.

4.4 Independent Roles

4.4.1 Environmental Representative

The ER is appointed by Sydney Metro and approved by the Planning Secretary in accordance with CoA A27-A32. The statutory role and functions of the ER are governed by CoA A33(a)–(k) and managed directly by Sydney Metro. To provide context for the Project's interface with the ER, these functions include:

- 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 conditions of this approval
- c) Consider and recommend to Sydney Metro any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community
- d) Review the Phasing Report, SEMP, CEMP, CEMP Sub-plans and Construction Monitoring Programs and any other documents that are identified by the Planning Secretary, to be satisfied that they are consistent with requirements in or under the Planning 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); or
- iii. Provide a written statement to the Planning Secretary advising the documents have been endorsed
- e) Regularly monitor the implementation of the Phasing Report, SEMP, CEMP, CEMP Sub-Plans and Construction Monitoring Program to be satisfied that implementation is being carried out in accordance with the documents and the CoA
- f) As may be requested by the Planning Secretary, help plan or attend audits of the development commissioned by the DPHI including scoping audits, programming audits, briefings and site visits, but not independent environmental audits required under CoA A42 of the Planning Approval
- g) As may be requested by the Planning Secretary, assist in the resolution of community complaints received directly by the DPHI
- h) Assess the impacts of activities as required by the LIW definition
- i) Consider the impacts of ancillary facilities as required by CoA A24 of the Planning Approval and where satisfied, endorse
- j) Consider minor amendments to be made to the SEMP, CEMP, CEMP Sub-Plans and Construction Monitoring Program without increasing impacts to nearby sensitive land use(s), and are consistent with the CoA and the SEMP, CEMP, CEMP Sub-plans and Construction 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 conditions of the Planning Approval
- k) 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 (7) 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.

To support the ER in performing the functions outlined above, Gamuda will, to the extent it is required under the SPW Deed:

- Provide the ER with documentation requested by the ER in order for the ER to perform their functions specified in the Planning Approval (including preparation of the Environmental Representative Monthly Report).
- Provide the Complaints Register to the ER on a weekly basis or as requested, where complaints have been received.
- Provide the ER with a copy of any assessment carried out by Gamuda of whether proposed work is consistent with the Planning Approval before the commencement of the subject work.
- Facilitate reasonable access to site, personnel and monitoring activities to allow the ER to undertake required inspections, verifications and audits.
- Promptly notify the ER of environmental incidents and relevant non-compliances and facilitate reasonable follow-up actions or investigations requested by the ER.
- Submit minor amendments to environmental management documentation to the ER for approval, where such amendments do not increase environmental impacts and remain consistent with the conditions of approval, the CEMP, CEMP Sub-plans, and Construction Monitoring Programs approved by the Planning Secretary.

4.4.2 Acoustic Advisor

The AA is appointed by Sydney Metro and approved by the Planning Secretary in accordance with CoA A36. The statutory role and functions of the AA are governed by CoA A39(a)–(h) and managed directly by Sydney Metro. To provide context for the Project's interface with the AA, these functions include:

- 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, where relevant, inform the Planning Secretary on matters specified in the CoA relating to noise and vibration
- c) Consider and recommend to the Sydney Metro improvements that may be made to avoid or minimise adverse noise and vibration impacts
- d) Review proposed night-time works (with the exception of low-risk activities) to determine if sleep disturbance would occur and recommend measures to avoid sleep disturbance or appropriate additional alternative mitigation measures
- e) Review noise and vibration documents required to be prepared under the CoA, and should they be consistent with the CoA, 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 noise and vibration documents required to be prepared under the CoA to ensure implementation is in accordance with what is stated in the document(s) and the CoA
- g) Review Sydney Metro's written notification of noise incidents in accordance with CoA A47–A49
- h) In conjunction with the ER (where required), the AA must:
 - i. as may be requested by the Planning Secretary or Community Complaints Mediator (required by Condition B8), 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 Sydney Metro and the community in relation to the noise and vibration performance of the CSSI, follow the procedure in the Overarching Community Communication Strategy referenced under Condition B1 to attempt to resolve the conflict, and if it cannot be resolved, notify the Planning Secretary,
 - iii. if requested by the ER, consider relevant minor amendments made to the 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 CoA 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 CoA),
 - iv. if requested by the ER, review the noise impacts of minor 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 (7) 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.

To support the AA in performing the functions outlined above, Gamuda will:

- Provide noise and vibration documents required under the Planning Approval to the AA for review and, where consistent with the conditions of approval, endorsement prior to submission or implementation.
- Provide the AA with access to the Complaints Register if requested.
- Provide the AA with access to noise and vibration monitoring activities as they take place and facilitate reasonable additional access to allow the AA to monitor the implementation of noise and vibration management measures.

- Promptly notify the AA of noise incidents, and provide the written notification required under the Planning Approval to allow the AA to undertake their review.
- Consider recommendations made by the AA to improve noise and vibration management practices and demonstrate to the satisfaction of the AA why a recommendation is not adopted.

4.5 Selection and Management of Subcontractors

Subcontractor selection and management is implemented as an operational control within the Project EMS to support the selection of subcontractors that have the capability and systems to comply with the Project's environmental requirements.

The Environment and Sustainability Manager, or delegate, will participate in subcontractor selection where the scope of works presents elevated environmental risk and/or where specific environmental competence is required. Subcontractor assessment may consider relevant experience, past environmental performance, proposed resources, and the ability to implement the requirements of the Planning Approval and this CEMP.

Environmental responsibilities and requirements are specified in subcontractor contract documentation and include flow-down obligations to comply with the Planning Approval requirements applicable to their works, as implemented through the approved CEMP, applicable Sub-Plans, Construction Monitoring Programs and associated environmental procedures. As a minimum, subcontractors are required to:

- Comply with the approved CEMP, applicable Sub-Plans and Construction Monitoring Programs relevant to their scope
- Complete Project and site environmental inductions and participate in ongoing environmental communications (e.g. pre-starts and toolbox talks)
- Implement required environmental controls, hold points, permits and procedures relevant to their activities
- Participate in environmental inspections, audits, monitoring activities and incident investigations, where required
- Prepare and comply with activity risk documentation (e.g. Activity Management Plans (AMP) or similar) where required (refer Section 5.12).

All subcontractors operate under the Project EMS and are subject to environmental oversight through inspections, audits and performance monitoring. Environmental incidents or deviations by subcontractors will be managed through the Project's corrective action processes and may result in retraining, suspension of activities and/or other contractual remedies, as applicable.

5 ENVIRONMENTAL RISK MANAGEMENT

5.1 Risk Context

Environmental risk management for the Project is undertaken in accordance with the Planning Approval, the Stage 3 Phasing Report, and the Sydney Metro CEMF. This section describes how environmental risks are identified, assessed, documented and managed throughout the delivery of the Project works.

5.2 EIS and Phasing Risk Assessment

The Sydney Metro West Stage 3 EIS (Appendix J) includes an environmental risk assessment using a methodology consistent with ISO 31000 principles. It establishes the baseline environmental risk profile for Sydney Metro West Stage 3 by identifying environmental aspects, potential impacts, mitigation requirements (including REMMs), and inherent and residual environmental risk ratings.

In accordance with CoA A16(e), the Stage 3 Phasing Report includes a phase-based environmental risk assessment, also consistent with ISO 31000, that identifies environmental risks and potential community concerns for each construction phase. These inputs directly inform this CEMP and the Environmental Risk and Aspects Register (refer Appendix D).

5.3 Stage 3 Environmental Risk Assessment Process

An environmental risk assessment process has been undertaken to identify and evaluate risks associated with the SPW construction scope. This was achieved through a multi-disciplinary review of project plans and inputs into the Phasing Report, involving construction, design, environment, and key specialists.

This review considered construction activities, staging and sequencing, ancillary facilities, sensitive receivers and interfaces with adjacent Sydney Metro West contractors. Outcomes from this assessment process are consolidated in the Environmental Risk and Aspects Register (refer Appendix D).

Where a risk is assessed as High or above, additional detailed planning may be undertaken through tools such as Activity Management Plans (AMP) (refer Section 5.12). These tools support the implementation of additional controls to facilitate the effective management of environmental risk before the associated activity proceeds.

5.4 Environmental Risk and Aspects Register

For the SPW works, the Environmental Risk and Aspects Register (refer Appendix D) forms Gamuda's primary tool for documenting the key environmental risks and controls that support the program for ongoing risk analysis required under CoAs A16 and C6(d). The register:

- Applies a likelihood–consequence risk methodology consistent with ISO 31000 and the EIS risk framework
- Incorporates relevant risks from the EIS Environmental Risk Analysis (Appendix J), the Submissions Report REMMs and the Phase-based Risk Assessment (CoA A16(e))
- Identifies inherent and residual environmental risk ratings
- Assigns risks to relevant CEMP Sub-Plans and Construction Monitoring Programs
- Links risks to AMP where additional planning is required
- Is maintained as a controlled document.

The register is a living document, updated as required by the triggers described in Section 5.5.

5.5 Ongoing Environmental Risk Analysis

Ongoing environmental risk analysis is undertaken throughout construction in accordance with CoAs A16 and C6(d). Ongoing environmental risk analysis occurs through:

- Routine Project reviews
- Periodic updates to the Environmental Risk and Aspects Register (e.g. quarterly or as triggered)
- Integration with the SPW AMP process
- Review of monitoring results, complaints, incidents and non-compliance investigations
- Internal and external environmental audits
- Assessment of cumulative and interface risks with adjacent Sydney Metro West contracts.

The Environmental Risk and Aspects Register is reviewed and updated whenever:

- Design or construction staging changes
- New ancillary facilities are proposed or existing facilities modified
- Licences or approvals are issued, amended or re-interpreted
- Environmental incidents, non-compliances or complaints occur
- Monitoring identifies exceedance trends or emerging environmental impacts
- Cumulative or interface risks change.

Where updates are required, corresponding amendments are made to relevant CEMP Sub-Plans to facilitate the ongoing effectiveness and appropriateness of controls.

5.6 Integration with CEMP Sub-Plans and SMART Actions

The outcomes of the environmental risk assessment directly inform the suite and content of CEMP Sub-Plans identified in Section 2.3. Consistent with the Sydney Metro CEMF and CoA C1 and C5, the Environmental Risk and Aspects Register (refer Appendix D):

- Identifies the key environmental risks for the SPW works
- Determines whether a CEMF aspect requires a dedicated CEMP Sub-plan (for example where mandated by CoA C5(a)–(c)), or can be effectively managed through procedures within this CEMP
- Allocates each risk to the relevant CEMP Sub-plan and/or procedure.

For each key environmental risk documented in the Environmental Risk and Aspects Register, the relevant CEMP Sub-Plan or Procedure:

- Identifies applicable performance outcomes and mitigation measures from the EIS, Submissions Report, REMMs and the Planning Approval
- Translates these into SMART actions (Specific, Measurable, Achievable, Realistic and Timely) in accordance with CoA C6(d)
- Specifies monitoring, inspection, reporting and review requirements
- Identifies any interface with Construction Monitoring Programs required under CoA C13.

Where ongoing environmental risk analysis identifies new or changed risks, the Environmental Risk and Aspects Register is updated and, where necessary, the associated CEMP Sub-Plans or procedures and Construction Monitoring Programs are revised to facilitate the ongoing appropriateness and effectiveness of controls.

5.7 Environmental Hold Points

Environmental Hold Points provide mandatory control gates to verify that specific construction activities do not proceed until designated environmental pre-conditions are met. Hold Points support implementation of the Planning Approval and facilitate appropriate specialist review.

Environmental Hold Points apply where required by:

- The Planning Approval (including CoA A22, A24, A33(d), C1–C8, C13–C17, and A46)
- The Sydney Metro CEMF
- The Environmental Risk and Aspects Register (Appendix D)
- Project Sub-Plans and procedures
- AMP (or similar for High-risk activities) (refer Section 5.12).

The activities listed in Table 5-1 must not proceed past the specified Hold Point until the release authority confirms that all requirements have been met and documented. Proceeding past a specified Hold Point without authorisation may result in a non-compliance if it occurs as a failure to adhere to a requirement of the Planning Approval as stipulated by CoA A50-51.

These Hold Points do not represent the full suite of Planning Approval conditions or preconditions applicable to the Project. Numerous Conditions of Approval and CEMF requirements establish approval preconditions, notifications, governance roles, management plans, monitoring programs or documentation requirements which must be satisfied prior to specific works or construction stages. These requirements are addressed through the Planning Approval compliance register, CEMP compliance matrices and relevant Sub-Plans, and apply irrespective of whether they are represented as operational Hold Points within this table.

Table 5-1: Environmental / Approval Hold Points

Hold Point	Requirement for Release	Release Authority
Commencement of Construction	CEMP and required Sub-Plans endorsed by ER and (where required) AA and approved by the Planning Secretary.	ER / Planning Secretary
Vegetation Clearing or Ground Disturbance	Pre-clearing inspection	Qualified Ecologist (if required) or Environment & Sustainability Manager (or delegate)
	Erosion and sediment control plan	Environment & Sustainability Manager (or delegate)
Discharge of water	Water tested to verify compliance and approval to discharge	Environment & Sustainability Manager (or delegate)
Out of Hours Work	Noise assessment and corresponding approval	Environment & Sustainability Manager (or delegate)
Use of local roads by heavy vehicles	Road dilapidation report	Appropriate Professional nominated by Gamuda
Use of local roads by heavy vehicles not assessed in the EIS	Approval of Heavy Vehicle Local Road (HVLRL) report and corresponding request per CoA E104/E105	Planning Secretary
Closure of on-street parking	Approved Construction Parking and Access Strategy (CPAS) per CoA E109	Planning Secretary
Construction identified as affecting buildings	Building condition survey	Appropriate Professional nominated by Gamuda
Unexpected heritage finds	Assessment of significance and management recommendation	Appropriate Professional nominated by Gamuda
Unexpected contamination find	Detailed Site Investigation Report prepared (or reviewed and approved) by a Contaminated Land Consultant certified under	SPW engaged NSW EPA accredited Site Auditor

Hold Point	Requirement for Release	Release Authority
requiring a detailed site investigation report	either the EIANZ scheme or the CPSS CSAM scheme	

5.8 Environmental Procedures, Permits and Forms

5.8.1 Operational Controls and Application

Environmental procedures, permits and forms are used on the Project as site-level operational controls to implement the Planning Approval, the CEMF and approved CEMP Sub-Plans, and to provide consistent verification and recordkeeping.

The Project risk assessment is used (consistent with the CEMF) to confirm whether a CEMF environmental aspect is managed through a standalone Sub-Plan or can be managed through a procedure within this CEMP, noting that any Sub-Plan or Construction Monitoring Program explicitly required by the Planning Approval remains mandatory.

Procedures, permits and forms are applied where required to:

- Support Hold Point releases
- Control activity-based authorisations
- Document inspections, approvals, notifications and corrective actions, including for ER/Sydney Metro assurance and audits.

The need for a specific procedure, permit or form is determined by the relevant CoA/CEMF requirements, the obligations in the approved Sub-Plans, and the controls identified in the Environmental Risk and Aspects Register.

5.8.2 Environmental Procedures, Permits and Forms

The Project will use the following environmental procedures, permits and forms as applicable:

- Activity based permits and authorisations
 - Out-of-Hours Work (OOHW) Permit
 - Permit to Enter a 'No-Go Zone'
 - Permit to Discharge and/or Reuse Water
 - Permit to Clear (where vegetation removal is required)
- Inspection and verification forms
 - Environmental Inspection Checklist
 - Pre-clearing Inspection Form
 - Post-clearing Inspection Form
 - Pre-rainfall Inspection Checklist
 - Post-rainfall Inspection Checklist
- Incident and contingency procedures
 - Environmental Incident and Non-Compliance Notification Report
 - Unexpected Heritage Finds Procedure
 - Unexpected Contaminated Land and Asbestos Finds Procedure

These documents are used in conjunction with, and do not replace, the requirements of the relevant CEMP Sub-Plans and Construction Monitoring Program.

5.9 Environmental Control Maps

Environmental Control Maps (ECMs) are site- or work area-specific drawings used to translate Planning Approval, CEMF and approved Sub-Plan requirements into clear, visual site controls. ECMs are a communication tool to support implementation of controls identified through the Environmental Risk and Aspects Register and any activity-specific planning (e.g. AMP), and are used in inductions, pre-starts and toolbox talks.

Consistent with the Sydney Metro CEMF, ECMs will be prepared and maintained for medium to high environmental risk sites/activities (and where otherwise required by the Project risk assessment, AMP or Sub-Plans). In accordance with the CEMF, ECMs are endorsed by the Environment Manager (or delegate) and do not form a separate statutory review or approval pathway.

As a minimum (and scaled to the work), ECMs will typically show:

- Worksite boundary/limits of work and access/egress points
- Environmentally sensitive areas and protection/no-go zones (including any exclusions/constraints identified for the work area)
- Location of key environmental controls relevant to the activity (including sediment and erosion controls where applicable, or cross-reference to a separate ESCP)
- Locations relevant to environmental compliance and response (e.g. spill kits/containment points, waste storage areas, drainage inlets/outfalls, monitoring points where applicable)
- Document control details (version/date/approvals) and any activity-specific environmental requirements (permits/forms that must be in place before works proceed).

ECMs are controlled “live” documents maintained on-site and will be reviewed and updated progressively to reflect staging, changes to site layout/controls, and lessons learned from inspections, incidents or audit findings. The Primary ECMs shown in Appendix H provide high-level details and control measures for each SPW site and will continue to form the basis of ongoing, detailed live ECMs used for day-to-day works. Updates to Primary ECMs will trigger a CEMP update. Updates to live ECMs do not trigger updates to this CEMP.

ECMs will be used as a key communication tool and may be made available to construction personnel through site inductions, pre-start meetings and toolbox talks, and may be displayed on-site where appropriate to the activity and work area to support implementation of controls.

ECMs will also be made available to Sydney Metro and the Environmental Representative (ER) upon request to support compliance monitoring and inspection activities.

5.10 Erosion and Sediment Control Plans

Erosion and sediment controls for SPW will be implemented through progressive, activity-specific Erosion and Sediment Control Plans (ESCPs) prepared for each work area where ground disturbance is proposed, consistent with the CEMF ESCP requirements and the Project’s Soil and Water controls (via the relevant Sub-Plan/procedures).

In accordance with the CEMF, ESCPs will:

- Be prepared prior to works commencing in the relevant area (including prior to vegetation clearing / earthworks where applicable), and be updated as works progress and site conditions change
- Define the control strategy for the work (diversion/containment, staging, stabilisation, inspection/maintenance triggers, rainfall response) and show the location and sequencing of controls

- Be developed in accordance with Managing Urban Stormwater: Soils and Construction (the “Blue Book”) and any additional project-specific requirements identified through risk assessment and Sub-Plans
- Be reviewed and approved by the Environment Manager (or delegate) prior to implementation and verified in the field through inspections (and reflected on the ECM where applicable).

ESCP implementation is linked to the Environmental Hold Points approach (i.e., intrusive works do not proceed until the required controls are installed and verified) and is supported by the relevant inspections/checklists (e.g. pre-/post-rainfall and routine environmental inspections).

Copies of the approved ESCP will be held by relevant construction personnel and may be displayed on-site where appropriate to the activity and work area to support implementation of controls.

Approved ESCPs will also be made available to Sydney Metro and the Environmental Representative (ER) upon request to support compliance monitoring and inspection activities

5.11 Implementation Documentation Framework

To support implementation of the CEMP, Sub-Plans and Procedures, environmental and approval requirements may be incorporated into project delivery documentation, including Activity Management Plans (AMPs) (refer Section 5.12) and other activity-specific planning documents (e.g. work packs, SWMS or subcontractor methodologies), as appropriate to the delivery approach.

These documents provide the mechanism for translating environmental and approval requirements into construction planning and execution.

Project delivery documentation may be used to:

- Integrate applicable environmental and approval requirements relevant to the activity
- Identify permits, approvals and hold points applicable to the works
- Support coordination of environmental, safety, quality and construction requirements
- Provide a basis for demonstrating implementation of the CEMP and Sub-Plans during construction.

5.12 Activity Management Plans and Equivalent Documentation

Activity Management Plans (AMPs), or equivalent activity-specific planning documents (refer Section 5.11), are operational planning and communication tools used to support the implementation of activity- or work-specific controls.

AMPs (or equivalent documentation) are typically developed and implemented by the Construction team or relevant subcontractors in consultation with Project support teams, including the Environment Team.

AMPs (or equivalent documentation) will typically include:

- Detailed account of the construction methodology and stages of works
- Sequence drawings or flow chart of activities
- Requirements for Temporary Works, Environment, Safety, Chain of Responsibility and Quality Assurance
- Required resources including plant, materials and labour
- Interfaces with adjacent or concurrent works
- Applicable permits, approvals and hold points relevant to the activity.

AMPs and equivalent activity-specific planning documents do not constitute approval documents under the Planning Approval or CEMF and are not subject to external review or endorsement. However, AMPs (or equivalent documentation) may be used as supporting evidence to demonstrate how CEMP, Sub-Plan and approval requirements are implemented during construction.

AMPs (or equivalent documentation) will be reviewed as part of standard project delivery processes to facilitate integration of environmental and approval requirements into implementation plans.

6 TRAINING, COMPETENCE AND AWARENESS

6.1 Training Needs Analysis

To support effective implementation of this CEMP for Project works, Gamuda will implement a structured, project-specific approach to environmental training, competence and awareness. Each level of project management is responsible for verifying that personnel under their control understand and comply with the environmental requirements applicable to their activities.

A project-specific Environmental Training Needs Analysis (TNA) has been undertaken during preparation of this CEMP. The TNA was informed by the Planning Approval, Sydney Metro CEMF, Environmental Risk and Aspects Register, CEMP Sub-Plans and Construction Monitoring Programs and SPW construction staging, methodologies and interface risks.

The TNA identifies the minimum training, competency and awareness requirements for each project role based on:

- Level of authority and decision-making responsibility
- Nature of activities undertaken
- Environmental risks and controls relevant to those activities
- Hold points, permits and approvals applicable to the role.

In accordance with the CEMF, the TNA:

- Identifies that all staff are to receive environmental training
- Identifies the competency requirements of staff that hold environmental roles and responsibilities
- Identifies appropriate training courses/events and the frequency of training to achieve and/or maintain these competency requirements
- Informs a training schedule that plans attendance at environmental training events.

The People and Culture Team will maintain records of all environmental inductions and training in the nominated records system, including mechanisms to notify staff of their training requirements and identify staff who do not attend scheduled training events or who have overdue training requirements.

6.2 Environmental Induction

All personnel (including subcontractors) must complete a compulsory Project induction prior to commencing work on site. The induction includes an environmental component specific to the SPW works.

Short-term visitors (including regulators), delivery drivers, and other transient visitors will be managed in accordance with the Project's safety and site access procedures, which designate appropriate visitor induction and supervision requirements.

The environmental component of the induction is delivered or overseen by the Environment and Sustainability Manager or delegate and addresses, in accordance with the CEMF, the following as a minimum:

- Training purpose, objectives and key issues
- Gamuda's environmental and sustainability policy(s) and key performance indicators
- Due diligence, duty of care and responsibilities

- Relevant conditions of any environmental licence and/or the relevant conditions of approval (Planning Approval CoAs relevant to SPW works)
- Reporting procedure(s) for environmental hazards, incidents, pollution and non-compliances
- Communication protocols for interactions with community and stakeholders (including complaint management)
- Environmental emergency response procedures
- Site specific issues and controls including those described in the environmental procedures, such as:
 - Working in environmentally sensitive areas and no-go zones
 - Heritage, contamination and UXF management requirements, including unexpected finds procedures
 - Use of ECMs, ESCPs and AMP or equivalent activity-specific planning documentation
- In accordance with CEMF-NV6, relevant project specific and standard noise and vibration mitigation measures, including:
 - Permissible hours of work
 - Any limitations on high noise generating activities
 - Location of nearest sensitive receivers
 - Construction employee parking areas
 - Designated loading/unloading areas and procedures
 - Site opening/closing times (including deliveries)
 - Identification of activities likely to cause complaint
 - Appropriate behavioural practices such as avoiding unnecessary shouting or radios.

The induction content will be updated where required to reflect changes to approvals, risks, staging, Sub-Plans or lessons learned from incidents and audit.

6.3 Daily Pre-starts and Toolbox Talks

6.3.1 Daily Pre-starts

Pre-start meetings are conducted by the Site Supervisor or Foreperson prior to commencement of work. Pre-starts communicate task-specific environmental risks, controls, restrictions and coordination requirements relevant to the day's activities.

Environmental matters addressed in pre-starts may include:

- Work area constraints and no-go zones
- ECM updates
- ESCP status and rainfall response actions
- Permit or hold point requirements
- Interface risks with adjacent works or packages
- Recent incidents, non-compliances or lessons learned.

6.3.2 Toolbox Talks

Toolbox talks are used to reinforce environmental awareness throughout construction and to address specific environmental risks relevant to upcoming works or recent events. Attendance at toolbox talks will be recorded.

Toolbox talks are targeted, risk-based and aligned to the Environmental Risk and Aspects Register, Sub-Plans, and Construction Monitoring Programs.

Potential environmental toolbox talks are shown in Table 6-1.

Table 6-1: Potential Environmental Toolbox Talks

Aspect	Training Requirements	Personnel Required	Timing / Frequency / Means
Emergency Spill Response	Use and location of spill kits; spill control; emergency response procedures; identification of hydraulic hose fatigue	Construction personnel	Project toolbox talks
Incident Management and Reporting	Incident and non-compliance reporting procedure	Construction personnel	Project toolbox talks
Noise and Vibration Management	Noise mitigation measures; OOHW protocols; high-noise activities	Area Managers responsible for implementation	Prior to high-noise activities
Blue Book Training	Erosion and sediment control principles and site controls	Relevant construction personnel	Prior to bulk earthworks
Heritage Management	Heritage protection measures; unexpected finds procedure	Construction personnel	Project toolbox talks
Flora and Fauna Management	Fauna protection measures; no-go zones; vegetation clearing controls	Construction personnel	Project toolbox talks
Air Quality Management	Dust and air quality controls	Personnel undertaking dust-generating activities	Prior to dust-generating works
Soil and Water Management	Soil and Water Management ESC controls; ASS management; contamination and UXF management requirements; dewatering and water reuse	Construction personnel	Project toolbox talks
Waste Management	Waste segregation, classification and reporting	Construction personnel	Project toolbox talks
Spoil Management	Spoil handling, classification, stockpile controls	Construction personnel	Project toolbox talks
Visual Amenity	Light spill, screening and stockpile management	Construction personnel	Project toolbox talks
Flooding	Flood triggers; fuel and chemical storage; stockpile management	Construction personnel	Project toolbox talks
Lessons Learnt	Briefings of lessons learnt from non-compliances, complaints, incidents or identified environmental issues.	Construction personnel	Project toolbox talks

6.4 Role-based Training and Competency Requirements

An indicative training matrix is provided in Appendix E which identifies the minimum training requirements for each Project role. In accordance with the CEMF, the specific frequencies to

achieve and/or maintain competency are managed dynamically within the live, controlled TNA register maintained outside this CEMP.

Training is planned and implemented at a frequency and timing appropriate to the role, activity and risk, including as required to support the commencement of relevant works, when roles or responsibilities change, and where refresher training is required based on risk, incidents or audit outcomes. Training requirements are scheduled and coordinated through project planning processes to align with construction staging and activity sequencing.

In accordance with the CEMF, topic-specific environmental training will be based upon, but is not limited to, the issue-specific CEMP Sub-Plans.

Records of all training (including inductions, role-based training and targeted environmental training) are maintained in accordance with Project document control systems.

7 COMMUNICATION AND CONSULTATION

7.1 Internal Environmental Communication

Internal environmental communication is implemented to support personnel in understanding the environmental requirements applicable to their work and to facilitate the communication of environmental risks, controls, incidents and lessons learned across SPW sites.

Internal communication pathways operate through:

- Project governance forums (IMT and site leadership meetings)
- Pre-starts and toolbox talks (refer Section 6.3)
- Targeted briefings for higher-risk activities (e.g. OOHV, dewatering, heritage/interface works)
- Distribution of environmental alerts / awareness notes where required (e.g. posters, crib shed notices, supervisor briefings)
- Site signage and map-based controls (ECMs, ESCPs) and permit/hold-point systems
- Project systems for reporting, corrective actions, and evidence retention.

Internal environmental communications are coordinated by the Environment and Sustainability Manager (or delegate) and are integrated with the Project's broader communication processes. Environmental communications are documented where they form part of the Project record (e.g. toolbox attendance, briefing sign-ons, issued alerts).

Table 7-1: Internal Environmental Communication Requirements

Communication / Forum	Purpose	Minimum Attendees	Frequency / Trigger	Records / Evidence
Daily pre-starts	Confirm daily work constraints, controls, hold points, permits, and interface risks	Site Supervisors / Forepersons, workforce	Daily prior to works	Pre-start record / sign-on (where used)
Environmental toolbox talks	Reinforce awareness, align controls to upcoming activities, capture lessons learned	Workforce, relevant supervisors	As required, risk-based	Toolbox record / sign-on
Station leadership meeting	Review constraints, inspections, incidents, corrective actions, upcoming high-risk works	Station Managers, Superintendents, relevant discipline leads, Environment	Weekly (or as required)	Minutes / actions register
IMT meeting	Governance oversight, resource allocation, escalation, performance and compliance	Project Director / Deputies, Construction Director, key managers including E&S	Weekly/fortnightly (Project-defined)	Minutes / actions register
Environmental coordination meeting	Manage risk register actions, permits / hold points, monitoring and upcoming interfaces	Environment, relevant site/discipline leads	Weekly (or as required)	Actions register / minutes
Environmental alerts / awareness notes	Rapid communication of critical controls, incidents, or rule changes	Targeted roles and/or all workforce	Triggered (incident, trend, change)	Issued alert and distribution record
Induction updates / briefings	Ensure workforce awareness of updated constraints/approvals	Induction participants	Triggered by change	Induction material version and attendance

7.2 Consultation with Sydney Metro, ER and AA

Consultation with Sydney Metro, the ER and the AA is undertaken to support compliance with the Planning Approval and to ensure that environmental management documents, mitigation measures, monitoring programs and change/incident responses are aligned with the required statutory pathways.

Consultation requirements include:

- Development and review of the CEMP, Sub-Plans and Construction Monitoring Programs
- Endorsement processes by the ER (and AA for relevant noise and vibration documents) (refer Section 2.5)
- Ongoing implementation monitoring, inspections and audit participation as required
- Change/consistency assessment discussions where environmental performance may be affected
- Incident and non-compliance notifications and follow-up actions.

Gamuda will provide the ER and AA with reasonable access to information, site activities and monitoring as required to enable them to perform their independent statutory functions under the Planning Approval. Consultation outcomes and endorsements are retained as Project records. Gamuda will work collaboratively with the ER and AA to make all feasible and reasonable efforts to resolve environmental concerns in good faith.

Minimum Project consultation requirements are described in Table 7-2.

Table 7-2: Minimum Consultation Requirements with Sydney Metro, ER and AA

Interaction	Purpose	Participants	Frequency / Trigger	Records / Evidence
Document development workshops / reviews	Align content to Planning Approval / CEMF; resolve comments prior to endorsement	Environment, relevant discipline leads, Sydney Metro (as required), ER/AA (as required)	During development and when revisions required	Comment logs / response register
ER endorsement pathway	Obtain ER endorsement / statement for CEMP / Sub-Plans / Monitoring Programs and relevant updates	Environment, ER, Sydney Metro (as required)	Prior to submission / implementation and for revisions	ER endorsement statement/email
AA endorsement pathway (noise / vibration)	Confirm noise / vibration documents and workflows meet requirements	Environment, AA, construction leads	Prior to submission / implementation and for revisions	AA endorsement statement/email
Regular ER / AA site inspections	Verify implementation of approved documents and controls	ER and/or AA with Environment and site leads	As agreed / required	Inspection notes / actions
Weekly Environment and Approvals Meeting	Coordinate upcoming works, approvals interfaces and compliance matters to support delivery	Environment, construction/site leads, Sydney Metro, ER/AA (as required)	Weekly unless otherwise agreed	Minutes / actions
Website updates	Support Planning Approval requirements for electronic publication of approved environmental documents	Sydney Metro; Environment / Stakeholder team	As required by Planning Approval	Publication record
Escalation meeting	Resolve significant non-compliance, incident, or community issue	IMT, Environment, Sydney Metro, ER/AA as required	Triggered	Minutes / actions

Interaction	Purpose	Participants	Frequency / Trigger	Records / Evidence
Complaints interface	Provide information to support independent reporting/review	Environment, Stakeholder & Community Engagement, ER/AA (as requested)	Weekly or as requested	Extract of complaints register

7.3 Agency and Council Interaction

Agency and council interaction is undertaken in accordance with the Planning Approval, the consultation requirements for Sub-Plans and Construction Monitoring Programs, and the Project's communications framework.

Agency / council interaction may include:

- Consultation during preparation of Sub-Plans and Construction Monitoring Programs where required
- Provision of information where required for incident response and notifications
- Attendance at meetings or site briefings as requested/required
- Correspondence relating to approvals, permits, or compliance matters associated with SPW works.

External environmental correspondence is controlled to support consistency with approved messaging and statutory obligations. The Environment and Sustainability Manager (or delegate) and the Stakeholder and Community Engagement Manager coordinate external communications and maintain records.

Where the Planning Approval requires a document to be prepared in consultation with identified parties, evidence of consultation will be maintained in accordance with Condition of Approval A6, including logs of engagement, issues raised, and how they have been addressed.

Unless an immediate response is required (e.g. incident response), formal communications with regulators/agencies are coordinated through Sydney Metro where required by the Planning Approval or Deed arrangements.

7.4 Community Information, Notifications and Complaints

7.4.1 Framework

Community information, notifications and complaints management are implemented in accordance with the Sydney Metro OCCS, the Sydney Metro Construction Complaints Management System (CCMS), and the applicable Planning Approval CoA B1–B7.

Sydney Metro retains responsibility for the overarching community engagement framework, the CCMS, the master Complaints Register and will utilise a Sydney Metro West Project website in accordance with the Planning Approval and the OCCS. Gamuda will also maintain a SPW Project specific website to manage its specific obligations and links to the Sydney Metro West Project website as required for Community Notifications and Upcoming Works.

In support of these requirements, Gamuda will prepare and implement a Project-specific Community Communications Plan (CCP) for SPW. The CCP will be consistent with and subordinate to the OCCS and will define how community information, notification and engagement requirements are operationalised for the SPW scope across all station sites.

The Gamuda CCP will:

- Identify SPW-specific stakeholders, sensitive receivers and affected communities, including vulnerable and marginalised groups at each station site
- Define notification requirements, timing and delivery methods for construction activities, including OOHW, changes to staging and activities with potential community impact.
- Establish site-specific communication protocols and identify site-specific mitigation measures aligned with the OCCS and Planning Approval requirements
- Define internal coordination and escalation pathways between site teams, the Environment function, the Stakeholder and Community Engagement Manager, Sydney Metro, the ER and the AA (where relevant).
- Support the implementation of the Community Benefit Plan(s)
- Consider cumulative impacts at each site, as relevant
- Facilitate the translation of commitments made through community notifications into on-ground controls, work practices and behaviours.

The Stakeholder and Community Engagement Manager is responsible for preparation and implementation of the Gamuda CCP, supported by Station Managers and the Environment function. Site teams are responsible for implementing site-specific controls and behaviours necessary to meet commitments made through notifications and to minimise community impacts.

7.4.2 Complaints Management

The CCMS will be implemented prior to commencement of SPW construction works and maintained for the duration of construction and for a minimum of 12 months following completion of the Project.

To facilitate community enquiries and manage complaints, the following will be available for the same duration:

- A 24-hour telephone number for registration of complaints and enquiries
- A postal address for written complaints and enquiries
- An email address for electronic complaints and enquiries
- A mediation system for complaints that cannot be resolved through standard complaint handling processes.

This information will be accessible to all members of the community regardless of age, ethnicity, disability or literacy level.

An electronic Complaints Register will be maintained by Sydney Metro. Gamuda will submit complaint records and associated investigation and response information into Sydney Metro's nominated community engagement database within 24 hours of receipt, to support population and maintenance of the Complaints Register.

The Complaints Register records, as a minimum:

- The number of complaints received
- The date and time of each complaint
- The number of people in the household affected, where relevant
- The method by which the complaint was made
- The personal details of the complainant, where provided, or a note where such details were not provided
- The nature of the complaint
- The means by which the complaint was addressed and whether resolution was reached, with or without mediation

- Where no action was taken, the reasons why no action was taken and whether a complaint is considered avoidable or unavoidable.

Gamuda will:

- Investigate complaints relevant to SPW works in accordance with Project procedures
- Implement corrective actions where investigations confirm a non-compliance, control failure or unforeseen impact
- Review complaint trends to inform risk management, sequencing decisions and updates to controls or methodologies where required
- Provide complaint information to the ER on a weekly basis or as requested, where complaints have been received, to support ER reporting obligations.

Where complaints relate to noise and vibration, the AA will be engaged as required and provided relevant information to support review, investigation and reporting in accordance with the Planning Approval and the OOHV Protocol.

Sydney Metro will be responsible for providing the Complaints Register to the Planning Secretary upon request, within the timeframe stated in the request.

7.4.3 Information Security and Privacy

Personal information collected as part of community enquiries or complaints will be managed in accordance with the *Privacy and Personal Information Protection Act 1998* (NSW) and applicable Sydney Metro information security requirements.

Community members and stakeholders making a complaint will be advised, before or as soon as practicable after providing personal information, that:

- The Complaints Register may be forwarded to government agencies, including the Department (Department of Planning and Environment, 4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150), to allow them to undertake their regulatory duties
- By providing personal information, the complainant authorises the Proponent to provide that information to government agencies
- The supply of personal information by the complainant is voluntary
- The complainant has the right to contact government agencies to access personal information held about them and to correct or amend that information (Collection Statement).

The Collection Statement is included on the Sydney Metro Project website to make prospective complainants aware of their rights under the *Privacy and Personal Information Protection Act 1998*. The Gamuda SPW Project website will include a link to the Collection Statement on the Sydney Metro Project website. For any complaints made in person, the complainant will be made aware of the Collection Statement.

7.4.4 Provision of Electronic Information

In accordance with the Planning Approval, a Project website or webpage will be established and maintained by Sydney Metro for the duration of construction, and for a minimum of 24 months following the completion of construction.

Gamuda will provide SPW-specific information and documentation to Sydney Metro for publication where required, including information relating to the implementation status of SPW works and documents required under the Planning Approval. Documents will be provided to Sydney Metro in a web-accessible format to support publication requirements.

8 INCIDENTS, NON-COMPLIANCES AND EMERGENCY RESPONSE

8.1 Incident and Non-Compliance Management Framework

In accordance with Condition of Approval (CoA) C1, this CEMP is prepared and implemented in accordance with the Sydney Metro Construction Environmental Management Framework (CEMF). To satisfy the requirements of the Planning Approval and CEMF Section 3.4(d)(xii) and 3.16(a) for incident and non-compliance management, this CEMP adopts the classification framework established in the Sydney Metro Environmental Incident and Non-Compliance Reporting Procedure (EINCRP).

Environmental incidents, non-compliances and related events arising from SPW works are managed in accordance with the following:

- Planning Approval (including incident and non-compliance definitions and notification / reporting requirements)
- Sydney Metro – Metro West Stage 3 Environmental Incident and Non-Compliance Reporting Procedure (SM-25-00264303), Version 1.0, 1 December 2025 (EINCRP) (including Sydney Metro classification categories and notification timeframes)
- SPW Deed (including allocation of CoA responsibilities and notification pathways)

Classification must be undertaken in accordance with this framework for external and Sydney Metro reporting requirements.

In accordance with CEMF Section 3.16, Gamuda will document and detail non-compliances with the requirements of legislative or other requirements. Sydney Metro will be made aware of non-compliances in accordance with the EINCRP in a timely manner.

Gamuda will develop and implement corrective actions to rectify non-compliances in order to prevent a re-occurrence. Gamuda will maintain a register of non-compliances and associated corrective actions.

In accordance with the EINCRP, required Environmental Incident and Non-Compliance Reports will be submitted to Sydney Metro within the required timeframes. Sydney Metro is responsible for entering, managing and tracking events within MetroPoint.

MetroPoint is the system of record for Sydney Metro. Where required, initial notification will occur to facilitate compliance with contractual and statutory timeframes.

8.1.1 Key Terms and Application

Table 8-1 summarises key terms used for incident and non-compliance identification, classification, notification and reporting under this CEMP, and identifies the source document that defines each term.

Table 8-1: Key Terms and their Application for Identification, Classification, Notification of Events and Incidents

Source	Term	Definition
Planning Approval – Schedule 1 Definitions	Incident	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 with the CoA.
	Material Harm	Is harm that: (a) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or

Source	Term	Definition
Sydney Metro Environmental Incident and Non-Compliance Reporting Procedure		(b) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).
	Non-compliance	An occurrence or set of circumstances or development that is a breach of the CoA
	Environmental Event	An environmental occurrence or set of circumstances which is subsequently determined to be an Incident, Non-compliance or an Environmental Issue.
	Environmental Issue	An occurrence or set of circumstances that is not an Incident or Non-compliance, but which requires rectification and requires reporting in accordance with section 1.9.1 of the EINCRP.
	Environmental Requirements	All and any requirements relating to the Environment, imposed by all sources relevant to a Sydney Metro development, including (but not limited to) Statutory Requirements, Planning Approval requirements, lease agreements and contractual requirements.
	Incident	An event or set of circumstances, as a consequence of which there is: (a) Pollution (air, water, noise or land) or a Pollution Incident; or (b) an adverse environmental impact including contamination, harm to flora and fauna (either individual species or communities), damage to heritage items and adverse community impacts.
	Non-compliance	A breach of an Environmental Requirement
	Material Harm	Has the same meaning as given to the term in s 147, Part 5.7 of the POEO Act, being: (a) harm to the environment is material 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 (or such other amount as is prescribed by the regulations), and (b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

8.1.2 Environmental Incidents

8.1.2.1 Incident Classification and Notification for Environmental Events

Table 8-2 provides a practical reference for the identification and classification of environmental events, issues and incidents during the SPW works, based on the applicable requirements in the Sydney Metro Environmental Incident and Non-Compliance Reporting Procedure (EINCRP) and the Planning Approval. Detailed notification and reporting requirements are provided in Section 8.1.2.1.1 through 8.1.2.1.4.

An event may constitute an “Incident” under the Planning Approval independently of its classification under the Sydney Metro EINCRP. Where there is uncertainty, events will be assessed conservatively against the Planning Approval incident and non-compliance definitions to facilitate compliance with statutory notification obligation.

Table 8-2: Indicative Incident Classification and Notification Guide for Environmental Events

Incident Classification		Incident Notification & Reporting	
Sydney Metro Per Deed and EINCRP as required by CEMF	Planning Approval	Gamuda → Sydney Metro EINCRP as required by CEMF	Sydney Metro → External Authorities Per Planning Approval, Deed and EINCRP as required by CEMF
Environmental Issue No environmental harm and no non-compliance if not rectified	Not an Incident	No incident notification required; manage and record internally unless escalation is required due to identified harm or non- compliance.	N/A
Class 3 (C6) No appreciable changes to environment and/or highly localised event	Not an Incident	Verbally notify Sydney Metro and ER of incidents immediately Provide notification report to Sydney Metro and the ER within 24 hours of the incident.	N/A
Class 3 (C5) Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries	Not an Incident		N/A
Class 3 (C4) Short-term and/or well-contained environmental effects. Minor remedial actions probably required	Not an Incident		N/A
Class 2 (C3) Impacts external ecosystem and considerable remediation is required	Apply material harm test, potential/likely incident	Immediate verbal notification to Sydney Metro and ER. Provide notification report to Sydney Metro and the ER within 24 hours of the incident.	Notify the EPA and relevant authorities immediately (Notifiable Events).
Class 2 (C2) Long-term environmental impairment in neighbouring or valued ecosystems Extensive remediation required		Notify the EPA and relevant authorities if directed by Sydney Metro (Notifiable Events).	Notify the Planning Secretary immediately (via phone or Major Projects website), with written notification within 24 hours of the initial phone call, and written incident notification within 7 days (and detailed incident report within 30 days where applicable), in accordance with the Planning Approval.
Class 1 (C1) Irreversible largescale environmental impact with loss of valued ecosystems	Incident	Prepare an investigation report and submit to Sydney Metro and the ER within 7 days	

8.1.2.1.1 Gamuda → Sydney Metro Incident Notification

The Project Environment and Sustainability Manager (or delegate) will verbally notify Sydney Metro and the ER as soon as practicable in accordance with the Sydney Metro EINCRP.

Written notification reports will be provided to Sydney Metro and the Environmental Representative within 24 hours using SM-17-00000105 (Environmental Incident and Non-Compliance Notification Report) or an equivalent form approved by Sydney Metro. In alignment with Planning Approval CoAs A47–A49, the incident notification will identify the CSSI (including the application number and the name of the CSSI), include the location and general nature of the incident and any actual or potential non-compliance with the Planning Approval.

Where an investigation is required, an Investigation Report will be provided within 7 days of becoming aware of the incident, unless otherwise agreed with Sydney Metro. It is not expected that initial Incident Notification Reports for Incidents under investigation initially include actions as these will be informed by the findings of the investigation. The report should be updated with actions resulting from the investigation when available.

For Class 1 incidents, the Sydney Metro Chief Executive or delegate may decide that a Crisis Management Team should be activated.

8.1.2.1.2 Sydney Metro → Planning Secretary

The Planning Secretary will be notified by Sydney Metro via phone or in writing via the Major Projects website immediately after Sydney Metro becomes aware of an incident, in accordance with Planning Approval CoA A47. Any notification via phone will be followed up by a notification in writing via the Major Projects website within 24 hours of the initial phone call. The written notification will include the following information:

- The CSSI and application number
- Details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident)
- How the incident was detected
- When Gamuda became aware of the incident
- Any actual or potential non-compliance with the CoA
- What immediate steps were taken in relation to the incident
- Further action(s) that will be taken in relation to the incident
- A project contact for further communication regarding the incident

Subsequent notification will be given and reports submitted in accordance with the requirements set out in Planning Approval CoA A49 and Appendix B.

8.1.2.1.3 Notifiable Pollution Incidents and Other Statutory Notifications

Where an Environmental Event constitutes a Notifiable Event under relevant legislation including the Protection of the *Environment Operations Act 1997* (POEO Act), Gamuda will immediately identify and escalate the event to Sydney Metro and the ER upon becoming aware of it.

In accordance with the Sydney Metro EINCRP, the SPW Deed and the Planning Approval, notification to the EPA and other relevant regulatory authorities will be undertaken by Sydney Metro, unless Gamuda is expressly directed otherwise.

Gamuda will support Sydney Metro by promptly providing all relevant information required for statutory notifications, investigations and reporting, including information required under sections 148–150 of the POEO Act.

Once the project EPL is issued, the management and external notification of pollution incidents causing or threatening material harm will also be undertaken in accordance with the Project's standalone Pollution Incident Response Management Plan (PIRMP)

8.1.2.1.4 Landowners

On several parcels of land to which this Project applies, Gamuda is operating in accordance with Interface Agreements which exist between Sydney Metro and a landowner or agency (such as the relevant Council). Selected obligations under these agreements are passed down to Gamuda. Where an incident occurs on land to which an Interface Agreement applies, notification to that stakeholder will be undertaken in accordance with that agreement.

8.1.2.2 Incident Response and Escalation

Environmental incident response and escalation is implemented to:

- Protect people and the environment
- Contain and minimise impacts
- Restore effective environmental controls
- Meet notification and reporting obligations
- Prevent recurrence through corrective actions.

Upon identification of an Environmental Event, response actions are initiated immediately, irrespective of whether final incident classification has been confirmed. Minimum response steps generally include:

1. Stop / Make Safe, Cease or modify the activity where required and make the area safe.
2. Contain, implement spill, pollution or erosion and sediment controls and isolate affected areas, drainage pathways or sensitive receptors as required.
3. Notify, Inform the Supervisor / Station Manager and Environmental Function immediately and escalate to the Incident Management Team (IMT) where required.
4. Assess, Determine the nature and extent of the impact, likely cause, and whether escalation or notification thresholds under the Planning Approval or the Sydney Metro procedure may apply.
5. Rectify, implement immediate corrective actions and reinstate effective environmental controls.
6. Document, Record the event, response actions and evidence as soon as practicable to facilitate compliance with statutory and Sydney Metro reporting requirements, including sequencing requirements where initial notifications are required prior to formal system entry.
7. Review, Identify and implement preventive actions and update registers, procedures, controls or training where required.

In accordance with the EINCRP, in instances where criminal activity is evident or suspected, or where detailed examination is warranted to determine the cause of the incident, the site of the incident is to be preserved and not disturbed except for actions required to contain impacts and make the area safe.

Stop-work authority applies in accordance with Section 4.3.2. Works must not recommence until it is confirmed that controls are effective and any required approvals or hold points are satisfied.

8.1.2.3 Incident Investigation, Corrective and Preventive Actions

Environmental incidents are investigated to determine root causes and to implement corrective and preventive actions proportionate to risk and consequence. In accordance with the Sydney Metro EINCRP, formal investigations are required for Significant Incidents (C3 to C1 classifications) and for any other Environmental Event where directed by Sydney Metro or the ER.

Investigations for Significant Incidents will be led by a suitably qualified person and conducted in a manner consistent with recognised investigation techniques such as the Incident Cause Analysis Method (ICAM). Investigation processes may include, as relevant:

1. Collection of evidence (e.g. photographs, monitoring data, witness statements, permits, ECM/ESCP versions)
2. Identification of immediate and underlying causes, including system or process failures
3. Identification of actual or potential Planning Approval non-compliance
4. Assignment of corrective and preventive actions, responsible persons and due dates
5. Verification of action completion and effectiveness
6. Communication of lessons learned (e.g. toolbox talks, alerts or briefings).

Corrective and preventive actions are tracked to facilitate compliance with statutory and Sydney Metro reporting requirements (including MetroPoint) and reviewed through site leadership and IMT forums, as appropriate. Where findings indicate that approved documents or controls are inadequate, updates to the Environmental Risk and Aspects Register, ECMs/ESCPs, procedures, Sub-Plans and/or this CEMP are initiated in accordance with document control requirements.

For Significant Incidents, outcomes of the investigation and corrective actions are subject to senior leadership review to facilitate appropriate oversight prior to final close-out and, where applicable, external reporting.

8.1.2.4 Incident Close-Out

An incident is considered closed when:

- All required notifications and reports have been submitted
- Corrective and preventive actions have been implemented and verified for effectiveness
- Sydney Metro and/or the ER (where applicable) have confirmed close-out in MetroPoint.

Incident records, investigation reports and evidence of action completion are retained as Project records in accordance with project document control requirements and the Sydney Metro EINCRP.

8.1.3 Non-Compliances and Environmental Issues

Table 8-3 provides a practical reference for the identification, escalation and management of Environmental Issues and Environmental Non-Compliances during the SPW works, based on the applicable requirements of the Sydney Metro Environmental Incident and Non-Compliance Reporting Procedure (EINCRP), the SPW Deed and the Planning Approval.

In accordance with CEMF Section 3.16(c), potential non-compliances may also be raised by Sydney Metro, the Acoustic Advisor, and/or the Environmental Representative. These must be assessed, recorded, and actioned in accordance with the EINCRP.

Where a lower-tier "Environmental Issue" is identified by these external parties during surveillance, the issue will be entered into MetroPoint by Sydney Metro or the ER. Gamuda is not required to initiate the MetroPoint record, but is obligated to implement the assigned corrective actions and upload evidence of completion into MetroPoint by the specified due date to facilitate formal verification and close-out by the initiator.

Table 8-3: Indicative Environmental Issue and Non-Compliance Escalation and Reporting Guide

Trigger (what is breached)	Classification	Escalation logic, notification method and timeframes
Internal Requirement Only Procedure, standard, internal record, training, inspection, or system control that does not directly implement a Deed obligation, Planning Approval condition, or document required by or approved under the Planning Approval.	Environmental Issue	- Record the Environmental Issue internally as soon as practicable after identification - Investigate and assign corrective and preventive actions internally. - Implement actions and verify effectiveness prior to close-out. - Retain records in accordance with project document control requirements. - No notification to Sydney Metro, regulators or external parties required.
Deed Requirement Only Lease, interface agreement or Deed obligation that does not directly implement a Planning Approval condition or an approved Planning Approval document.	Environmental Non-Compliance (Sydney Metro)	- Record the deviation internally as soon as practicable. - Notify Sydney Metro of the non-compliance as soon as practicable after confirmation. - Where immediate awareness is required, provide verbal notification to the Sydney Metro representative. - Submit written notification using SM-17-00000105 (Environmental Incident and Non-Compliance Notification Report) or an equivalent form approved by Sydney Metro within 24 hours of identification. - Implement corrective actions and provide evidence of close-out to Sydney Metro as requested. - No notification to the Planning Secretary, as no Planning Approval requirement has been breached.
Planning Approval Requirement Planning Approval condition or document required by, or approved under, the Planning Approval (including approved CEMP, Sub-Plans and documents expressly required or approved under the Consolidated Approval). Note: Environmental harm is not required for this classification.	Environmental Non-Compliance (Planning Approval & Sydney Metro)	- Record the deviation internally immediately after identification. - Notify Sydney Metro of the non-compliance as soon as practicable after confirmation. - Where immediate awareness is required, provide verbal notification to the Sydney Metro representative. - Submit written notification using SM-17-00000105 (Environmental Incident and Non-Compliance Notification Report) or an equivalent form approved by Sydney Metro within 24 hours of identification. - Sydney Metro must notify the Planning Secretary via the Major Projects website, within seven (7) days of becoming aware of the Non-Compliance. The notification must include the CSSI details, the condition(s) breached, how it doesn't comply, reasons (if known), and actions taken / to be taken (in strict accordance with Planning Approval CoAs A50 and A51). - Gamuda must provide Sydney Metro with relevant information needed to facilitate the A50/A51 notification and must implement corrective / preventive actions to address and prevent recurrence. - Corrective and preventive action obligations continue until formal close-out is confirmed in MetroPoint.

8.1.3.1 Environmental Issue and Non-Compliance Investigation, Corrective and Preventative Action

Environmental Issues and Environmental Non-Compliances identified during the SPW works are investigated and managed to determine root causes, implement appropriate corrective and preventive actions, and prevent recurrence. Investigation and corrective action processes are applied proportionate to the nature, risk and consequence of the breach and in accordance with the highest applicable obligation.

8.1.3.1.1 Investigation Requirements

Investigations must, as a minimum, address the following:

- Identification of the specific requirement breached (Internal Requirement, Deed, Sydney Metro Environmental Requirement and/or Planning Approval condition or approved document)
- Determination of immediate and underlying causes, including system, procedural or control failures
- Assessment of whether similar Environmental Issues or Environmental Non-Compliances have occurred or could reasonably occur elsewhere on the Project

Confirmation of whether the breach also constitutes:

- a Sydney Metro Environmental Non-Compliance; and/or
- a Planning Approval Non-Compliance

Formal investigations are required where:

- Directed by Sydney Metro or the Environmental Representative in relation to a potential Non-Compliance
- Required to facilitate Sydney Metro reporting or Planning Approval Non-Compliance notifications.

8.1.3.1.2 Corrective and Preventative Actions

Corrective and preventive actions must:

- Address both the immediate cause and systemic contributors
- Be assigned a responsible person and a defined timeframe
- Be proportionate to the risk and compliance significance of the breach

Corrective actions may include, as appropriate:

- Revision of procedures, controls, work methods or Sub-Plans
- Training, toolbox talks or targeted communications
- Increased inspection, monitoring or assurance activities
- Physical remediation or reinstatement of controls

All corrective and preventive actions are recorded, tracked and managed to facilitate compliance with statutory and Sydney Metro reporting requirements:

Where an Environmental Non-Compliance has been notified to Sydney Metro and/or the Planning Secretary, evidence of corrective and preventive action implementation must be provided to Sydney Metro as required to support contractual and statutory close-out in MetroPoint.

8.1.3.2 Environmental Issue and Environmental Non-Compliance Close-Out

An Environmental Issue or Environmental Non-Compliance is considered closed only when applicable obligations across internal, contractual, and statutory frameworks have been satisfied.

8.1.3.2.1 Minimum close-out requirements

Close-out requires confirmation that:

- The Environmental Issue or Non-Compliance has been recorded
- Assigned corrective and preventive actions have been implemented
- The effectiveness of those actions has been verified
- Required evidence has been retained in accordance with project document control requirements.

8.1.3.2.2 Additional close-out requirements

Where applicable:

- Sydney Metro Environmental Non-Compliances (and Environmental Issues raised by Sydney Metro or the ER) are not formally closed until Sydney Metro and/or the Environmental Representative has verified the evidence of action completion and confirmed close-out in MetroPoint.
- Planning Approval Non-Compliances require confirmation that statutory reporting obligations and follow-up requirements have been satisfied to facilitate final closure.

8.1.3.2.3 Records and retention

Records associated with Environmental Issues and Environmental Non-Compliances are retained as Project records in accordance with project document control requirements and the Sydney Metro EINCRP. This may include:

- Investigation outputs
- Corrective and preventive actions
- Supporting evidence
- Correspondence with Sydney Metro or regulators.

8.2 Emergency Preparedness and Response

8.2.1 Project Emergency Response Plan

Environmental emergency preparedness and response for the SPW works is implemented through the Project Emergency Response Plan (PERP), supported by an Environmental Emergency Response Procedure (EERP) provided at Appendix F.

This framework ensures that environmental emergencies arising from SPW activities are managed in a manner that:

- Protects human health and the environment
- Contains and mitigates environmental harm
- Restores effective environmental controls
- Facilitates compliance with applicable notification, reporting and follow-up obligations.

The Environmental Emergency Response Procedure has been prepared to address the environmental emergency response requirements arising from the Sydney Metro CEMF and applicable legislation (including the POEO Act).

Without limiting the scope of the Project Emergency Response Plan, the Environmental Emergency Response Procedure specifically addresses environmental emergency scenarios relevant to SPW works, including (as applicable):

- Fuel, oil and chemical spills
- Uncontrolled discharge of contaminated water or sediment-laden runoff
- Failure of erosion and sediment controls during rainfall events
- Firewater or contaminated runoff entering the stormwater system
- Discovery of unexpected contamination requiring immediate isolation
- Damage to heritage fabric or unexpected heritage finds requiring urgent protection
- Severe weather events that compromise environmental controls.

The Environmental Emergency Response Procedure defines:

- Environmental emergency triggers and initial response actions
- Roles, responsibilities and escalation pathways, including the identification of personnel who have the authority to take immediate action to shut down any activity or to affect any environmental control measure
- Containment, mitigation and clean-up requirements
- Internal and external notification requirements (including Sydney Metro, the ER and statutory authorities where applicable)
- Documentation, investigation and corrective action requirements
- Post-event review and close-out processes.

Environmental emergency response arrangements are integrated with:

- Site inductions, toolbox talks and training programs
- Availability and maintenance of spill response and containment equipment
- Environmental Control Maps (ECMs), ESCPs and permits
- The Project's incident and non-compliance management framework under Section 8.1.

Where an environmental emergency also constitutes an Environmental Incident, Environmental Non-Compliance or Planning Approval Non-Compliance, the notification, investigation and reporting requirements in Section 8.1 apply in addition to the emergency response actions.

9 MONITORING, INSPECTIONS, AUDITING AND REPORTING

Key characteristics of the Project activities which have an impact on the environment will be regularly monitored and measured. This may include issue-specific environmental monitoring, recording of information to track performance, monitoring controls, and level of compliance with objectives and targets.

Regular compliance activities, such as inspections, observations and monitoring will be undertaken throughout construction of the Project. Subcontractor works will be included in inspections, observations, monitoring, and audits as appropriate.

Environmental compliance will be tracked through a combination of inspections, monitoring, audits, incident and non-compliance reporting, and associated action tracking systems. This includes tracking compliance with Planning Approval conditions, approved documents, and project controls, with actions assigned, monitored and closed out within defined timeframes.

This framework supports ongoing demonstration of compliance with Planning Approval conditions, approved documents and project requirements, and interfaces with Sydney Metro compliance assurance processes where required.

9.1 Environmental Inspections

Environmental inspections verify implementation of controls, identify emerging issues and confirm that the Project is operating in accordance with the Planning Approval, approved documents and applicable project requirements.

Inspections include:

- Routine environmental inspections of work areas, controls and housekeeping
- ESCP/erosion and sediment control inspections (including pre-/post-rainfall where applicable)
- Permit/hold-point verification checks prior to releasing activities
- Targeted inspections for higher-risk activities (OOHW, dewatering/discharge, heritage/interface works)
- Environmental surveillance inspections led by Sydney Metro, the ER and/or AA where required
- Other aspect specific inspections required by CEMP Sub-Plans.

Environmental inspection findings and associated actions are recorded using the relevant inspection checklists and action registers and are closed out within agreed timeframes. Where deficiencies in environmental controls, housekeeping or environmental performance are identified, inspection records will document the nature of the issue, required corrective actions, assigned priority and evidence of close-out. Issues requiring escalation beyond routine maintenance or standard site practice are recorded and managed in accordance with the incident and compliance management framework established in Section 8.1. Inspection records and supporting evidence are retained as controlled Project records.

Minimum Project inspection requirements are described in Table 9-1.

Table 9-1: Minimum Environmental Inspection Requirements

Inspection Type	Scope	Responsibility	Minimum Frequency / Trigger	Records / Evidence
Daily surveillance	Work areas, controls, waste, spill readiness, ECM compliance	Construction Function	Daily during activities with high environmental risk	Foreperson's Logbook / Site Diary

Inspection Type	Scope	Responsibility	Minimum Frequency / Trigger	Records / Evidence
Weekly Environmental inspection	Work areas, controls, waste, spill readiness, ECM compliance (refer Appendix H)	Environment Function	Weekly per active site (or as risk requires)	Inspection checklist and actions
Pre-rainfall / post-rainfall checks (where relevant)	Verify controls in advance and after rainfall events	Construction and Environment Function	Triggered by forecast/thresholds and rainfall	Inspection checklist and actions
Hold-point verification	Confirm prerequisites satisfied before activity proceeds	Release authority per Table 5-1	Each hold point event	Hold-point release record
Targeted activity inspection	Confirm controls for high-risk activities	Environment and activity lead	Triggered	Inspection checklist and actions
ER inspections	Facilitate independent monitoring / verification	Construction and Environment Function	As scheduled / requested	Inspection checklist and actions
Shutdown environmental inspection	Verify environmental controls, materials, waste and site stability are secured for the shutdown period	Construction and Environment Function	Prior to site shut down (e.g. Christmas period)	Inspection checklist and actions

9.1.1 ER Inspections

Formal site inspections will be completed by Sydney Metro, the ER and/or the Acoustic Advisor (AA) in accordance with the Sydney Metro West Compliance Monitoring and Reporting Program (CMRP).

The Project Environment and Sustainability Manager (or delegate) will attend these external site inspections. Issues identified during these inspections will be formally recorded in MetroPoint by Sydney Metro or the ER.

Gamuda is responsible for actioning and responding to any identified corrective actions within the specified timeframes. To facilitate formal verification and closure, Gamuda must upload evidence of action completion against the relevant action in MetroPoint by the due date.

9.2 Environmental Monitoring

Environmental monitoring is undertaken where required by the Planning Approval, Phasing Report, and CEMF with Construction Monitoring Programs informed by identified Project risks.

In accordance with CoA C14, the Construction Monitoring Programs include (as relevant):

- Details of baseline data available including the period of baseline monitoring
- Details of baseline data to be obtained and when
- Details of all monitoring of the Project to be undertaken
- The parameters of the project to be monitored
- The frequency of monitoring to be undertaken
- The location of monitoring
- The reporting of monitoring results and analysis results against relevant criteria
- Details of the methods that will be used to analyse the monitoring data
- Procedures to identify and implement additional mitigation measures where the results of the monitoring indicate unacceptable project impacts

- A consideration of SMART principles
- Any consultation to be undertaken in relation to the monitoring programs
- Any specific requirements as required by CoA C15.

Monitoring results are reviewed by the Environment function and relevant discipline leads. Where monitoring identifies exceedances, trends or emerging risks, corrective actions are implemented and escalation occurs as required.

The Construction Monitoring Programs, as the ER has endorsed, including any minor amendments approved by the ER, will be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the ER, whichever is the greater.

Real-time monitoring will be in place for all surface construction sites in accordance with the Construction Monitoring Programs. This will include equipment which monitors noise and vibration emissions.

Monitoring results will be reported and managed in accordance with the approved Construction Monitoring Programs.

The Construction Monitoring Programs, developed in accordance with the CEMF and relevant Planning Approval requirements (including, where applicable, requirements for noise and vibration monitoring), define the monitoring parameters, methodology, duration, reporting requirements and response actions, including where additional mitigation or changes to monitoring are required based on results. These programs will be implemented for the duration specified in the relevant Construction Monitoring Program.

Monitoring results and associated analysis will be made available to the Environmental Representative, Acoustic Advisor (where relevant), and regulators, and provided to the Planning Secretary upon request, in accordance with the approved Construction Monitoring Programs.

9.3 Auditing

9.3.1 Audits

Audits will be undertaken in accordance with the Project audit program, including an initial audit within three months of construction commencement and periodic audits thereafter. The purpose of auditing is to verify compliance with:

- The Project EMS, including this CEMP, Sub-Plans and Construction Monitoring Program.
- Planning Approval requirements.
- Any relevant legal and other requirement.
- Implementation of operational controls.

Auditing of the project environmental requirements will be carried out in accordance with AS/NZS ISO 14001:2016 Environmental management systems - Requirements with guidance for use and AS/NZS ISO 19011:2019– Guidelines for Auditing Management Systems. Audits will be undertaken by suitably qualified personnel within the Project team.

Actions arising from the audit will be developed in consultation with the personnel involved in the audit and implementation overseen by the Environment and Sustainability Manager (or delegate). Consistent with the terminology and escalation logic established in Section 8.1.3, audit findings will be assessed to determine whether they constitute an "Environmental Issue" or a statutory/contractual breach (an "Environmental Non-Compliance")

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Audit findings and associated corrective actions will be managed in accordance with the Environmental Issue and Environmental Non-Compliance Management Framework set out in Section 8.1 of this CEMP.

An audit checklist will be developed and amended as necessary to reflect changes to this CEMP, subsequent approvals and changes to Acts, regulations, or guidelines. Note that audit findings may result in the Project EMS requiring updates.

The minimum timeframes for undertaking internal audits are detailed in Section 9.3.3.

9.3.2 Independent Audits

In accordance with Conditions of Approval A42–A46, Independent Audits of the Project must be conducted in accordance with the Independent Audit Post Approval Requirements (DPIE, 2020), and an audit program maintained outlining the scope and timing of each audit.

In accordance with the SPW Station Delivery Deed, the responsibility for administering these conditions and the Independent Audit program sits with Sydney Metro. Gamuda's role in Independent Audits is strictly limited to:

- Providing all requested information and documentation and participating in the audit process as required by the Independent Auditors.
- Providing Sydney Metro with a response to any audit findings within 10 Business Days after the conclusion of the audit.

9.3.3 Audit Schedule

Internal and independent audit requirement are summarised in Table 9-2.

Table 9-2: Internal and Independent Audit Requirements

Audit Type	Requirement	Timing	Responsibility	Recipient
CEMP and Sub-Plans	Verify Project-specific compliance with Planning Approval conditions (CoAs), REMMs, licences and permits, the CEMP, Sub-Plans, Construction Monitoring Programs and implementation of site environmental controls.	Within three months of commencement of construction then minimum 6 monthly thereafter. Note: An annual schedule for auditing the CEMP and Sub-Plans will be maintained and updated at least monthly.	Project Environment and Sustainability Manager (or delegate)	Project Director Project Environment and Sustainability Manager
External Independent Audit	Verify compliance with Planning Approval.	Within 12 weeks of the commencement of construction. At intervals, no greater than 26 weeks from the date of the initial Independent Audit or as otherwise agreed by the Planning Secretary. Note: Sydney Metro is responsible for establishing and maintaining this schedule; Gamuda is required to participate and close out assigned actions.	Sydney Metro	Project Director Project Environment and Sustainability Manager Sydney Metro DPHI

9.4 Reporting

Reporting is implemented to demonstrate compliance with the Planning Approval, meet contractual reporting obligations to Sydney Metro under the SPW Deed, support internal governance, and enable independent oversight by the ER and AA, where applicable.

Reporting under this CEMP comprises the following distinct streams:

- Deed reporting to Sydney Metro in, including environmental inputs to the Monthly Project Report.
- Statutory and approval-driven reporting, including incident and non-compliance notifications and Independent Audit reporting, where required under the Planning Approval.
- Provision of information to support ER and AA functions, including ER compliance assessments and monthly ER/AA reporting, where requested.

Internal reports and internal records are retained by the Project and made available to Sydney Metro, the ER or the Planning Secretary only where expressly required by the Planning Approval, the SPW Deed, or where statutory Environmental Incident or Environmental Non-Compliance reporting thresholds are triggered.

Minimum reporting requirements are summarised in Table 9-3.

Table 9-3: Minimum Reporting Requirements

Report / Output	Content	Responsibility	Frequency / Trigger	Distribution
Monthly Project Report	Environmental performance summary; Environmental Incidents and Environmental Non-Compliances (excluding internally managed Environmental Issues unless raised by Sydney Metro or ER); audit outcomes within the reporting period; monitoring summary	Project Environment and Sustainability Manager (or delegate)	Monthly	Sydney Metro
Incident / non-compliance notification	Event details; classification; immediate actions; regulatory pathway and required notifications	Environment Operations & Approvals Lead	Triggered (incident / non-compliance thresholds) (refer Section 8)	Sydney Metro; ER (where required under the EINCRP); Planning Secretary (where required under the Planning Approval)
Information for ER compliance assessments	Evidence against selected CoA, REMMS and CEMF requirements to the extent they apply to SPW.	Environment Function	As requested by ER under the SM CMRP	Sydney Metro, ER
Information for ER & AA compliance assessments and monthly reporting	Complaints summary; incidents; compliance status; key changes to works or controls; provision of construction monitoring results and associated analysis.	Environment Function	As formally requested by ER/AA per Planning Approval.	ER; AA; Sydney Metro
			As otherwise voluntarily informally agreed with the ER and AA.	ER and AA as otherwise agreed.
Construction Monitoring Report(s)	Results of the Construction Monitoring Program(s)	Environment Function	At the frequency identified in the relevant	ER; AA (where relevant); Planning Secretary (upon

Report / Output	Content	Responsibility	Frequency / Trigger	Distribution
			Construction Monitoring Program	request); Relevant regulatory agencies if defined in the Construction Monitoring Program
Independent Audit reporting	Independent Audit Report and Proponent response	Sydney Metro / Independent Auditor	As required under the Planning Approval	Planning Secretary

Note: The provision of information to the ER and AA is strictly reactive in accordance with CoA A34 and CoA A39. Any routine provision of this information (e.g., on a voluntary monthly or six-monthly basis) is an administrative arrangement to assist the ER/AA in their functions in good faith. It is not a statutory compliance requirement of this CEMP. Failure to provide information that has not been formally requested by the ER/AA does not constitute a breach of this CEMP and cannot result in a non-compliance.

10 RECORDS AND DOCUMENT CONTROL AND REVIEW

10.1 Environmental Records and Data Management

Environmental records provide evidence of compliance and implementation of this CEMP, Sub-Plans and Construction Monitoring Programs. Records are controlled and retained in accordance with project document control requirements.

Environmental records may include (as applicable):

- Approved CEMP, Sub-Plans and Construction Monitoring Programs and endorsement/approval evidence
- Training and induction records
- Inspection and monitoring records, calibration certificates, chain-of-custody where relevant
- ECM/ESCP versions and distribution records
- Permits, authorisations and hold-point release records
- Environmental Incidents, Environmental Non-Compliances, formal investigations, corrective actions and close-out evidence (excluding internally managed Environmental Issues)
- Complaints register and complaint investigation records
- Consultation records with Sydney Metro, ER, AA and agencies/councils
- Audit reports and responses.

Records are stored in the Project's nominated records system with appropriate access controls, version control and retention settings. Where required by the CEMF and or Planning Approval, records must be readily retrievable for Sydney Metro assurance activities, ER / AA review and Department and EPA requests, as applicable.

10.2 CEMP Review and Revision

This CEMP, associated Sub-Plans, and Construction Monitoring Programs are controlled documents and are reviewed and revised to remain current and effective throughout delivery.

Triggers for review include (but are not limited to):

- Changes to construction staging, methodology or site access arrangements
- Issuance or amendment of Planning Approval instruments or applicable CoAs
- Approval or amendment of Sub-Plans or monitoring programs
- Incidents, non-compliances or complaint trends indicating control gaps
- Monitoring results indicating exceedances or emerging risks
- Audit findings or Sydney Metro/ER/AA recommendations
- Changes to roles, responsibilities, systems or key interfaces.
- Expanded scope of works
- An annual review of the documents as a minimum.

Where revisions are required:

- Changes are developed by the Environment function in consultation with relevant discipline leads
- Revised documents are submitted for Sydney Metro and / or ER endorsement / approval in accordance with the Planning Approval requirements applicable to the change.
- Superseded versions are retained in accordance with recordkeeping requirements.

10.3 Management Review / Continual Improvement

Gamuda will implement management review processes to facilitate continual improvement of the Project EMS and environmental performance.

This review shall generate actions for the continual improvement of the systems and supporting management plans. However, updates to this CEMP, associated Sub-Plans, and Monitoring Programs will only be triggered where the management review specifically identifies a need to amend operational controls or statutory processes.

Management reviews consider:

- Compliance status and significant obligations
- Environmental performance against objectives and targets
- Risk register updates and effectiveness of controls
- Environmental Incidents, Environmental Non-Compliances, complaints and corrective action trends
- Audit outcomes and assurance findings
- Adequacy of resources, competence and training
- Opportunities for improvement, including procedure/control updates and lessons learned.

Outcomes of management reviews are documented, actions assigned and tracked to completion. Where improvements require changes to controlled documents, those changes are progressed through the review and revision process described in Section 10.2.

APPENDICES

Appendix A: Compliance matrix

Table A-1 Relevant Conditions of Approval

CoA	Condition Requirement	Document Reference
Concept Approval		
C-A2	The Proponent must carry out the CSSI Concept in accordance with the conditions of this approval and the documents listed in Condition C-A1 of this schedule unless otherwise specified in, or required under, the conditions of this approval	Section 1.5 Compliance Framework (incl. 1.5.1 Approval and Deed Requirements)
C-A4	Except to the extent described in any document listed in Condition C-A1 of this schedule, any over station development, including any future uses, does not form part of this CSSI and will be subject to the relevant assessment pathway prescribed by the EP&A Act.	Section 1.1 Project Overview (CEMP scope / exclusions includes OSD not forming part
C-B1	To ensure that a high-quality urban design response is achieved, the CSSI must have regard to, and be generally consistent with, the place and design principles for each location outlined in the documents listed in Condition C-A1 of this schedule, unless expressly specified in the conditions of this approval.	Section 2.6 Environment in Design (design integration / design must align with approval outcomes)
C-B7	The CSSI must achieve a minimum Infrastructure Sustainability Council of Australia (ISCA) Infrastructure Sustainability rating of 75 (Version 1.2) (or equivalent level of performance using a demonstrated equivalent rating tool) or a 5-Star Green Star rating (or equivalent level of performance using a demonstrated equivalent rating tool).	Section 1.7.2.1 Sustainability Section 3 Project Objectives and Targets + Section 2.6 Environment in Design (sustainability objectives and design integration)
C-B8	As many mature trees as practicable must be retained. In addition, a net increase in the number of mature trees provided at a ratio of 2:1 must be provided by no later than the commencement of no later than the commencement of operation of the CSSI or as otherwise agreed by the Planning Secretary.	Section 2.6 Environment in Design + Section 5.7 Environmental Hold Points (pre-disturbance gates / approvals before vegetation clearing)
C-B9	The CSSI must result in an increase in tree canopy coverage.	Section 2.6 Environment in Design
C-B11	The CSSI must be designed to withstand known impacts associated with climate change to year 2100.	Section 2.6 Environment in Design
Stage 3 Approval		
Administrative – General		
A1	The Proponent must carry out the CSSI in accordance with the conditions of this approval and generally in accordance with the: (a) Sydney Metro West – Rail infrastructure, stations, precincts and operations – Environmental Impact Statement dated March 2022; and (b) Sydney Metro West – Rail infrastructure, stations, precincts and operations – Submissions Report dated August 2022. (c) Correspondence from Sydney Metro dated 20 June 2024 requesting modification of conditions A24, E70, E73 and E134; and (d) Correspondence from Sydney Metro dated 3 November 2025 requesting modification of Conditions A9, E9, E22 and E44.	Section 1.5 Compliance Framework, 1.5.1 Approval and Deed Requirements
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.	Section 1.5 Compliance Framework, 1.5.1 Approval and Deed Requirements
A5	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; (c) any notification given to the Planning Secretary under the conditions of this approval; (d) any audit of the CSSI; (e) the conditions of this approval and compliance with the conditions 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.	Section 1.5 Compliance Framework
A6	Where the conditions 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(s) 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(s) and a summary of the issues raised by it; (c) documentation of the follow-up with the identified party(s) where feedback has not been provided to confirm whether the party(s) has feedback or has failed to provide feedback after repeated requests; (d) outline of the issues raised by the identified party(s) and how they have been addressed; and (e) a description of the outstanding issues raised by the identified party(s) and the reasons why they have not been addressed. Note: Consultation with the community and businesses must be undertaken in accordance with the Overarching Community Communication Strategy required under Condition B1.	Section 2.5 Stakeholder Consultation and Endorsement, and Section 7.2 Consultation with Sydney Metro, ER and AA

CoA	Condition Requirement	Document Reference
Administrative - Phasing		
A15	The CSSI may be constructed and operated in phases. Where phased construction and / or operation is proposed, a Phasing Report must be prepared and submitted to the Planning Secretary for information no later than one (1) month before the lodgement of any CEMP or CEMP Sub-plan for the first of the proposed phases of construction (or if only phased operation is proposed, one (1) month before the commencement of operation of the first of the proposed phases of operation), unless otherwise agreed with the Planning Secretary.	Section 1.6 Staging and Phasing Context
A16	"The Phasing Report must: (a) set out how the construction of the whole of the CSSI will be phased, including details of work and other activities to be carried out in each phase and the general timing of when construction of each phase will commence and finish; (b) if phased operation is proposed, set out how the operation of the whole of the CSSI will be phased, including details of activities to be carried out in each phase and the general timing of when operation of each phase will commence and finish (if relevant); (c) specify the relevant conditions that apply to each phase and how compliance with conditions will be achieved across and between each of the phases of the CSSI; (d) set out mechanisms for managing cumulative impacts arising from the proposed phasing; and (e) for the purposes of informing Conditions C3, C7 and C16, include an assessment of the predicted level of environmental risk and potential level of community concern posed by the construction activities required to construct each phase of the CSSI. With respect to (e) above, the risk assessment must use an appropriate process consistent with AS/NZS ISO 31000: 2018; Risk Management - Principles and Guidelines and must be endorsed by the ER"	Section 1.6 Staging and Phasing Context
A17	The CSSI must be phased in accordance with the Phasing Report, as submitted to the Planning Secretary.	Section 1.6 Staging and Phasing Context
A18	Where phasing is proposed, the conditions of this approval that apply or are relevant to the work or activities to be carried out in a specific phase must be complied with at the relevant time for that phase.	Section 1.6 Staging and Phasing Context
A19	Where changes are proposed to the phasing of construction or operation, a revised Phasing Report must be prepared and submitted to the Planning Secretary for information before the commencement of changes to the phasing.	Section 1.6 Staging and Phasing Context
A20	With the agreement of the Planning Secretary, the Proponent may submit any strategies, plans or programs required by this approval on a progressive basis within each phase of the CSSI. Notes: 1. While any strategy, plan or program may be submitted on a progressive basis, the Proponent must ensure that the existing activities 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 submitted on a progressive basis, then the relevant strategy, plan or program must clearly describe the activities to which the strategy, plan or program applies, the relationship of these activities to future activities within the phase, and the trigger for updating the strategy, plan or program.	Section 2.2 Construction Environmental Management Plan
Administrative - Site Establishment Work		
A22	Before the establishment of an ancillary facility (excluding exempt or complying development, minor ancillary facilities determined by the ER to have minimal environmental impact and those established under Condition A24, and those considered in an approved CEMP), a Site Establishment Management Plan must be prepared which outlines the environmental management practices and procedures to be implemented for the establishment of the ancillary facility. The Site Establishment Management Plan must be prepared in consultation with the Relevant Council(s), SOPA (in respect of Sydney Olympic Park), Place Management NSW (in respect of The Bays) and government agencies. The Plan must include: (a) a description of activities to be undertaken during establishment of the 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 use(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, where appropriate or required. Nothing in this condition prevents the preparation of individual Site Establishment Management Plans for each construction ancillary facility. Note: This condition does not apply to Condition A24 or where the use of an ancillary facility is Low Impact Work or for Low Impact Work.	Section 1.8.5 Ancillary Works and Facilities
A23	An ancillary facility established under Condition A22 must not be used for construction until the CEMP required by Condition C1, relevant CEMP Sub-plans required by Condition C5 and relevant Construction Monitoring Programs required by Condition C13 have been approved by the Planning Secretary or endorsed by the ER (whichever is relevant). Note: This condition does not apply to Condition A24 or where the use of an ancillary facility is Low Impact Work or for Low Impact Work.	Section 1.8.5 Ancillary Works and Facilities
A24	Ancillary facilities may 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 the Construction Boundary; or (b) are a continuation of an ancillary facility or minor ancillary facility established in accordance with the conditions of approval for SSI 10038 or SSI 19238057 to the satisfaction of the ER and endorsed under SSI 10038 or SSI 19238057 before the date of approval of SSI 22765520 MOD 2; or (c) are located outside of the Construction Boundary and have: (d) minimal environmental impact beyond those already approved under other conditions of this approval; and (e) no impacts on biodiversity, soil and water, and Heritage items beyond those already approved under other conditions of this approval. (f) Ancillary facilities or minor ancillary facilities established under SSI 10038 or SSI 19238057 including any changes to these must be endorsed by the ER prior to continuation of its use for the purposes of the CSSI. ER consideration must include a review of the cumulative environmental impacts associated with continuation, including a review informed with community consultation on the continuation. (g) Ancillary facilities that are considered under Condition A24(c) must be approved by the Planning Secretary prior to their establishment. A request for approval by the Planning Secretary must include: (h) justification of the need for the facility; (i) community consultation outcomes including consideration of and response to issues raised in engagement with occupants of surrounding land uses; (j) a specified duration and specified activity; and	Section 1.8.5 Ancillary Works and Facilities

CoA	Condition Requirement	Document Reference
	(k) a cumulative impact assessment Note: A separate approval is not required for an ancillary facility outside the construction boundary under Condition A24(c) where A24(b) applies.	
A25	Boundary screening must be erected around ancillary facilities that are adjacent to sensitive land use(s) for the duration of the time that the ancillary facility is in use, unless otherwise agreed with relevant affected residents, business operators or landowners.	Section 1.8.5 Ancillary Works and Facilities
A26	Boundary screening required under Condition A25 must minimise visual impacts on adjacent sensitive land use(s).	Section 1.8.5 Ancillary Works and Facilities
Administrative - Environmental Representative		
A33	For the duration of the work and for no less than six (6) months following completion of construction of the CSSI, or as agreed with the Planning Secretary, the approved ER must be enabled to: (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 conditions 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 the Phasing Report, Site Establishment Management Plan, CEMP, CEMP Subplans and Construction Monitoring Programs and any other documents that are identified by the Planning Secretary, to be satisfied that 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); or (iii) provide a written statement to the Planning Secretary advising the documents have been endorsed; (e) regularly monitor the implementation of the Phasing Report, Site Establishment Management Plan, CEMP, CEMP Sub-plans and Construction Monitoring Programs to be satisfied that implementation is being carried out in accordance with the document and the conditions 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 A42 of this approval; (g) as may be requested by the Planning Secretary, assist in the resolution of community complaints received directly by the Department; (h) assess the impacts of activities as required by the Low Impact Work definition; (i) consider the impacts of ancillary facilities as required by Condition A24 of this approval and where satisfied, endorse; (j) consider any minor amendments to be made to the Site Establishment Management Plan, CEMP, CEMP Sub-plans and Construction Monitoring Programs without increasing impacts to nearby sensitive land use(s), and are consistent with the conditions of this approval and the Site Establishment Management Plan, CEMP, CEMP Sub-plans and Construction 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 conditions of this approval; (k) 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 (7) 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. With respect to (d) above, the ER is not required to endorse the specialist content in documents requiring specialist review and / or endorsement.	Section 4.4.1 Environmental Representative
A34	The Proponent must provide the ER with documentation requested by the ER in order for the ER to perform their functions specified in Condition A33 (including preparation of the Environmental Representative Monthly Report), as well as: (a) the Complaints Register (to be provided on a weekly basis or as requested, where complaints have been received); 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 4.4.1 Environmental Representative
Administrative - Acoustics Advisor		
A38	The Proponent must cooperate with the AA by: (a) providing access to noise and vibration monitoring activities as they take place; (b) providing access to the Complaints Register if requested; (c) providing for review of noise and vibration documents required to be prepared under the conditions of this approval; and (d) considering any recommendations to improve practices and demonstrating, to the satisfaction of the AA, why any recommendation is not adopted."	Section 4.4.2 Acoustic Advisor
A39	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, where relevant, inform the Planning Secretary on matters specified in the conditions 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 proposed night-time works (with the exception of low risk activities) to determine if sleep disturbance would occur and recommend measures to avoid sleep disturbance or appropriate additional alternative mitigation measures; (e) review noise and vibration documents required to be prepared under the conditions of this approval, and should they be consistent with the conditions 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 noise and vibration documents required to be prepared under the conditions of this approval to ensure implementation is in accordance with what is stated in the document(s) and the conditions of this approval; (g) review the Proponent's written notification of noise incidents in accordance with Conditions A47 to A49 of this approval; (h) in conjunction with the ER (where required), the AA must: (i) as may be requested by the Planning Secretary or Community Complaints Mediator (required by Condition B8), 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	Section 4.4.2 Acoustic Advisor

CoA	Condition Requirement	Document Reference
	Overarching Community Communication Strategy referenced under Condition B1 to attempt to resolve the conflict, and if it cannot be resolved, notify the Planning Secretary, (iii) if requested by the ER, consider relevant minor amendments made to the 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 conditions 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 conditions of this approval), (iv) if requested by the ER, review the noise impacts of minor 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 (7) 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."	
Administrative - Independent Environmental Audit		
A42	Independent Audits of the CSSI must be conducted and carried out in accordance with the Independent Audit Post Approval Requirements (DPIE, 2020).	Section 9.3.2 Independent Audits
A43	Notwithstanding Condition A42, the Proponent may prepare an audit program to outline the scope and timing of each Independent Audit that will be undertaken during construction. If prepared, the audit program must be developed in consultation with, and approved by, the Planning Secretary before commencement of the first audit and implemented throughout construction. Note: Until such time an audit program is approved by the Planning Secretary under this condition, Independent Audits must be prepared in accordance with Condition A42.	Section 9.3.2 Independent Audits
Administrative - Incident, Non-Compliance Notification and Reporting		
A47	The Planning Secretary must be notified, via phone or in writing via the Major Projects website, immediately after the Proponent becomes aware of an incident. Any notification via phone must be followed up by a notification in writing via the Major Projects website within 24 hours of the initial phone call.	Section 8 Incidents, Non-Compliances and Emergency Response
A49	Subsequent notification must be given and reports submitted in accordance with the requirements set out in APPENDIX B.	Section 8 Incidents, Non-Compliances and Emergency Response
A50	The Planning Secretary must be notified, via the Major Projects website, within seven (7) days after the Proponent becomes aware of any non-compliance with the conditions of this approval.	Section 8 Incidents, Non-Compliances and Emergency Response
Community - Community Information, Consultation and Involvement		
B1	The Overarching Community Communication Strategy as provided in the documents listed in Condition A1 must be implemented for the duration of the work. Should the Overarching Community Communication Strategy be updated, a copy of the updated strategy must be provided to the Planning Secretary for information within seven (7) days of its revision."	Section 7.4 Community Information, Notifications and Complaints
B6	The Complaints Register must be provided to the Planning Secretary upon request, within the timeframe stated in the request. Note: Complainants must be advised that the Complaints Register may be forwarded to government agencies to allow them to undertake their regulatory duties."	Section 7.4 Community Information, Notifications and Complaints
Construction Environmental Management - CEMP		
C1	Construction Environmental Management Plans (CEMPs) and CEMP Sub-plans must be prepared in accordance with the Construction Environmental Management Framework (CEMF) included in the documents listed in Condition A1 to detail how the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1 will be implemented and achieved during construction.	Section 2.2 Construction Environmental Management Plan
C2	With the exception of any CEMPs expressly nominated by the Planning Secretary to be endorsed by the ER, all CEMPs must be submitted to the Planning Secretary for approval.	Section 2.2 Construction Environmental Management Plan
C3	The CEMPs not requiring the Planning Secretary's approval must be submitted to the ER for endorsement no later than one (1) month before the commencement of construction or where construction is phased no later than one (1) month before the commencement of that phase. That CEMP must obtain the endorsement of the ER as being consistent with the conditions of this approval and all undertakings made in the documents listed in Condition A1.	Section 2.5 Stakeholder Consultation and Endorsement
C4	CEMPs to be approved by the Planning Secretary must be endorsed by the ER and then submitted to the Planning Secretary for approval no later than one (1) month before the commencement of construction or where construction is phased no later than one (1) month before the commencement of that phase.	Section 2.2 Construction Environmental Management Plan
C5	Of the CEMP Sub-plans required to be prepared under Condition C1, the following CEMP Subplans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of issues raised by a government agency during consultation must be included in the relevant CEMP Sub-plan, including copies of all correspondence from those government agencies as required by Condition A6. Where a government agency(ies) request(s) is not included, the Proponent must provide the Planning Secretary / ER (whichever is applicable) justification as to why: (a) Noise and Vibration: Place Management NSW and Port Authority of NSW (in respect of The Bays), SOPA (in respect of Sydney Olympic Park) and Relevant Council(s) (b) Heritage (Non-Aboriginal and Aboriginal): Heritage NSW, Place Management NSW and Port Authority of NSW (in respect of The Bays), SOPA (in respect of Sydney Olympic Park) and Relevant Council(s) (c) Contamination: SOPA (in respect of Sydney Olympic Park)"	Section 2.3 Construction Environmental Management Sub-Plans
C6	The CEMP Sub-plans must state how: (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."	Section 2.3 Construction Environmental Management Sub-Plans
C7	With the exception of any CEMP Sub-plans expressly nominated by the Planning Secretary to be endorsed by the ER, all CEMP Sub-plans must be submitted to the Planning Secretary for approval.	Section 2.3 Construction Environmental Management Sub-Plans

CoA	Condition Requirement	Document Reference
C8	The CEMP Sub-plans not requiring the Planning Secretary's approval must obtain the endorsement of the ER as being in accordance with the conditions of approval and all relevant undertakings made in the documents listed in Condition A1. Any of these CEMP Sub-plans must be submitted to the ER with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before construction or where construction is phased no later than one (1) month before the commencement of that phase.	Section 2.5 Stakeholder Consultation and Endorsement
C9	Any of the CEMP Sub-plans to be approved by the Planning Secretary must be submitted to the Planning Secretary with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before construction or where construction is phased no later than one (1) month before the commencement of that phase.	Section 2.5 Stakeholder Consultation and Endorsement
C10	Construction must not commence until the relevant CEMP(s) and CEMP Sub-plans have been approved by the Planning Secretary or endorsed by the ER (whichever is applicable), unless otherwise agreed by the Planning Secretary. The CEMP and CEMP Sub-plans, as approved by the Planning Secretary or endorsed by the ER (whichever is applicable), including any minor amendments approved by the ER, must be implemented for the duration of construction. Where construction of the CSSI is phased, construction of a phase must not commence until the CEMP and CEMP Sub-plans for that phase have been approved by the Planning Secretary or endorsed by the ER upon nomination by the Planning Secretary (whichever is applicable).	Section 2.3 Construction Environmental Management Sub-Plans
C13	The following Construction Monitoring Program 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: (a) Noise and Vibration: EPA, Place Management NSW (in respect of The Bays), SOPA (in respect of Sydney Olympic Park) and Relevant Council(s)"	Section 2.4 Construction Monitoring Programs
C14	Each Construction Monitoring Program must provide: (a) details of baseline data available including the period of baseline monitoring; (b) details of baseline data to be obtained and when; (c) details of all monitoring of the project to be undertaken; (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 Condition C15.	Section 2.5 Stakeholder Consultation and Endorsement, and Section 9.2 Environmental Monitoring
C15	The Noise and Vibration Construction Monitoring Program must include: (a) noise and vibration monitoring determined in consultation with the AA to confirm the best achievable construction noise and vibration levels with consideration of all reasonable and feasible mitigation and management measures that will be implemented; (b) for the purposes of (a), noise monitoring must be undertaken during the day, evening and night-time periods (as appropriate) 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; and (c) a process to undertake real time noise and vibration monitoring. The results of the monitoring must be readily available to the construction team, the Proponent, ER and the AA. The Planning Secretary and EPA must be provided with access to the results on request (d) noise monitoring methods must be developed and carried out to meet the requirements of the EPA's Approved Methods for the Measurement and Analysis of Environmental Noise (EPA, 2022).	Section 2.5 Stakeholder Consultation and Endorsement, and Section 9.2 Environmental Monitoring
C16	With the exception of any Construction Monitoring Programs expressly nominated by the Planning Secretary to be endorsed by the ER, all Construction Monitoring Programs must be submitted to the Planning Secretary for approval.	Section 2.4 Construction Monitoring Programs
C17	Construction Monitoring Programs not requiring the Planning Secretary's approval must obtain the endorsement of the ER as being in accordance with the conditions of approval and all undertakings made in the documents listed in Condition A1. These Construction Monitoring Programs must be submitted to the ER for endorsement at least one (1) month before the commencement of construction or where construction is phased no later than one (1) month before the commencement of that phase.	Section 2.4 Construction Monitoring Programs
C18	Construction Monitoring Programs which require Planning Secretary approval must be endorsed by the ER and then submitted to the Planning Secretary for approval at least one (1) month before the commencement of construction or where construction is phased no later than one (1) month before the commencement of that phase.	Section 2.4 Construction Monitoring Programs
C19	Unless otherwise agreed with the Planning Secretary, construction must not commence until the Planning Secretary has approved, or the ER has endorsed (whichever is applicable), the required Construction Monitoring Programs and all relevant baseline data for the specific construction activity has been collected.	Section 2.4 Construction Monitoring Programs
C20	Construction Monitoring Programs, as approved by the Planning Secretary or the ER has endorsed (whichever is applicable), 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 or the ER (whichever is applicable), whichever is the greater.	Section 2.4 Construction Monitoring Programs
C21	The results of the Construction Monitoring Program must be submitted to the Planning Secretary (upon request), the ER, the AA (where relevant) and relevant regulatory agencies, for information in the form of a Construction Monitoring Report at the frequency identified in the relevant Construction Monitoring Program. Notes: 1. Where a relevant CEMP Sub-plan exists, the relevant Construction Monitoring Program may be incorporated into that CEMP Sub-plan. 2. Data must be provided in an acceptable format for relevant regulatory agencies. 3. With regards to monitoring data to be provided to DPE Water, the format of the dataset must be both in a tabulated and electronic quality-controlled data (.csv, Excel) ready to use format.	Section 9 Monitoring, Inspections, Auditing and Reporting, 9.4 Environmental Reporting

Table A-2 Relevant CEMF Requirements

ID	CEMF Requirement	Document Reference
3.4 Construction Environmental Management Plan		
a.	Principal Contractors are required to prepare and implement a Construction Environmental Management Plan (CEMP) relevant to the scale and nature of their scope of works. The CEMP shall comprise of a main CEMP document, issue specific sub plans, activity specific procedures and site based control maps. The CEMP shall illustrate the relationship between other plans required by the contract, in particular those that relate to design management.	Sections 2.2, 2.3, 5.8, 5.9 + Figure 2-1 Document Map
b.	Depending on the scope and scale of the works, Sydney Metro may decide to streamline the CEMP and sub-plan requirements. For example, depending on the risk associated with particular environmental issues it may be appropriate to remove the need for a sub plan, or replace with a procedure as part of the CEMP.	Table 2-1 CEMP Sub-Plan Requirement Analysis + Section 2.3
c.	The CEMP will cover the requirements of the relevant planning approval documentation, the conditions of all other permits and licences, the Principal Contractor's corporate EMS, the environmental provisions of the contract documentation and this Construction Environmental Management Framework.	Section 1.5 (1.5.1–1.5.4) + Appendix B Legal and Other Obligation Register
d.	As a minimum the CEMP will:	-
i.	Include a contract specific environmental policy;	Section 2.1 Environmental Policy + Appendix C
ii.	Include a description of activities to be undertaken during construction;	Section 1.8.3 Construction Activities + Table 1-3 (site-based construction activities)
iii.	For each plan under the CEMP include a matrix of the relevant Conditions of Approval or Consent referencing where each requirement is addressed;	Appendix A (this matrix) + Section 1.5 Compliance Framework
iv.	For each plan under the CEMP, set objectives and targets, and identify measurable key performance indicators in relation to these;	Section 3 Project Objectives and Targets
v.	For each role that has environmental accountabilities or responsibilities, including key personnel, provide a tabulated description of the authority and roles of key personnel, lines of responsibility and communication, minimum skill level requirements and their interface with the overall project organisation structure;	Section 4 Environmental Governance, Roles and Responsibilities
vi.	Assign the responsibility for the implementation of the CEMP to the Principal Contractor's Environment Manager, who will have appropriate experience. The Principal Contractor's Project Director will be accountable for the implementation of the CEMP;	Section 4.3 Gamuda Roles (incl. Environment & Sustainability Team)
vii.	Identify communication requirements, including liaison with stakeholders and the community;	Section 7 Communication and Consultation
viii.	Include induction and training requirements and a summary of the Training Needs Analysis required in Section 3.10(b);	Section 6 Training, Competence and Awareness + Appendix E Indicative Training Matrix
ix.	Management strategies for environmental compliance and review of the performance of environmental controls;	Section 10.3 Management Review / Continual Improvement
x.	Procedures for environmental inspections and monitoring, auditing and review, and reporting on environmental performance including environmental compliance tracking;	Section 9 Monitoring, Inspections, Auditing and Reporting
xi.	Include an annual schedule for auditing the CEMP and Sub-Plans that is updated at least monthly;	Section 9.3.3 Audit Schedule
xii.	Include procedures for emergency and incident management, non-compliance management, and corrective and preventative action; and	Section 8 Incidents, Non-Compliances and Emergency Response + Appendix F Environmental Emergency Response Procedure
xiii.	Include procedures for the control of environmental records.	Section 10 Records and Document Control and Review (incl. 10.1 Environmental Records and Data Management)
e.	The CEMP and associated sub-plans will be reviewed by Sydney Metro and/or an Independent Environmental Representative (see Section 3.12) and/or an Independent Acoustic Advisor (see Section 3.13) prior to any construction works commencing. Depending on the Conditions of Approval, the CEMP and certain sub-plans may also require the approval of the NSW Department of Planning and Environment (DPE).	Section 2.5 Stakeholder Consultation and Endorsement + Section 4.4 Independent Roles (ER/AA)
f.	Where a corresponding systems document exists within the Sydney Metro Integrated Management System, the Principal Contractor's procedures will be required to be consistent with any requirements in those documents.	Section 1.5.3 Gamuda Environmental Management System
3.5 Construction Environmental Management Sub-Plans		
a	Subject to Section 3.4(b) the Principal Contractor will prepare issue-specific environmental sub plans to the CEMP which address each of the relevant environmental impacts at a particular site or stage of the project. Issue specific sub plans will include:	Section 2.3 Construction Environmental Management Sub-Plans + Table 2-1 Sub-Plan Requirement Analysis
i.	Spoil management;	Section 2.3
ii.	Groundwater management;	Section 2.3
iii.	Noise and vibration management;	Section 2.3 + Section 2.4
iv.	Heritage management;	Section 2.3
v.	Flora and fauna management;	Section 2.3
vi.	Visual amenity management;	Section 2.3
vii.	Soil and water management;	Section 2.3
viii.	Air quality management;	Section 2.3
ix.	Waste management; and	Section 2.3
x.	Contamination management.	Section 2.3
3.6 Environmental Procedures and Control Maps		

ID	CEMF Requirement	Document Reference
a.	The Principal Contractor will prepare and implement activity specific environmental procedures. These procedures should supplement environmental management sub plans, but may substitute for sub plans in agreement with Sydney Metro if a reasonable risk-based justification can be made and the sub plan is not a requirement of any approval	Section 5.8 Environmental Procedures, Permits and Forms
b.	The procedures will include:	-
i.	A breakdown of the work tasks relevant to the specific activity and indicate responsibility for each task;	Section 5.8 (Operational controls / procedures / permits / forms) Section 5.11 Activity Management Plans
ii.	Potential impacts associated with each task;	Section 5.8 (Operational controls / procedures / permits / forms) Section 5.11 Activity Management Plans
iii.	A risk rating for each of the identified potential impacts;	Section 5.8 (Operational controls / procedures / permits / forms) Section 5.11 Activity Management Plans
iv.	Mitigation measures relevant to each of the work tasks; and	Section 5.8 (Operational controls / procedures / permits / forms) Section 5.11 Activity Management Plans
v.	Responsibility to ensure the implementation of the mitigation measures.	Section 5.8 (Operational controls / procedures / permits / forms) Section 5.11 Activity Management Plans
c.	The Principal Contractor will prepare and implement site based progressive Environmental Control Maps (ECM's) which as a minimum:	Section 5.9 Environmental Control Maps + Appendix H Environmental Control Maps
i.	Depicts the current representation of the site;	Section 5.9 Environmental Control Maps + Appendix H Environmental Control Maps
ii.	Indicate which environmental procedures, environmental approvals, or licences are applicable;	Section 5.9 Environmental Control Maps + Appendix H Environmental Control Maps
iii.	Illustrate the site, showing significant structures, work areas and boundaries;	Section 5.9 Environmental Control Maps + Appendix H Environmental Control Maps
iv.	Illustrate the environmental control measures and environmentally sensitive receivers;	Section 5.9 Environmental Control Maps + Appendix H Environmental Control Maps
v.	Is endorsed by the Principal Contractors Environment Manager or delegate;	Section 5.9 Environmental Control Maps + Appendix H Environmental Control Maps
vi.	Include all the training and competency requirements for relevant workers; and	Section 5.9 Environmental Control Maps + Appendix H Environmental Control Maps
vii.	Be communicated to relevant workers, including sign-off for the appropriate procedures prior to commencing works on the specific site and / or activity.	Section 5.9 Environmental Control Maps + Appendix H Environmental Control Maps
3.7 Additional Environmental Assessments		
a.	Where the requirement for an additional environmental assessment is identified, this will be undertaken prior to undertaking any construction activities. The environmental assessment will include:	Section 1.3.4 (Further Changes to the Approved Project),
i.	A description of the existing surrounding environment;	Section 1.3.4 (Further Changes to the Approved Project),
ii.	Details of the ancillary works and construction activities required to be carried out including the hours of works;	Section 1.3.4 (Further Changes to the Approved Project),
iii.	An assessment of the environmental impacts of the works, including, but not necessarily limited to, traffic, noise and vibration, air quality, soil and water, ecology and heritage	Section 1.3.4 (Further Changes to the Approved Project),
iv.	Details of mitigation measures and monitoring specific to the works that would be implemented to minimise environmental impacts; and	Section 1.3.4 (Further Changes to the Approved Project),
v.	Identification of the timing for completion of the construction works, and how the sites would be reinstated (including any necessary rehabilitation).	Section 1.3.4 (Further Changes to the Approved Project),
3.8 Condition Surveys		
a	Prior to the commencement of construction, the Principal Contractors are to offer Pre-construction Building Condition Surveys, in writing, to the owners of buildings where there is a potential for construction activities to cause damage regardless of severity. If accepted, the Principal Contractor will produce a comprehensive written and photographic condition report produced by an appropriate professional prior to relevant works commencing.	Section 5.7 Environmental Hold Points (Building Condition Survey hold point), Noise and Vibration Management Sub-Plan
b	Prior to the commencement of construction, the Principal Contractor will prepare a Road Dilapidation Report for all local public roads proposed to be used by heavy vehicles. Dilapidation reports are to include other road infrastructure such as signs, curbs, applicable driveways and pedestrian paths.	Section 5.7 Environmental Hold Points (Road Dilapidation Report hold point), Noise and Vibration Management Sub-Plan
3.9 Register of Hold Points		
a	Principal Contractors will identify hold points, beyond which approval is required to proceed with a certain activity. These hold points will be documented in the CEMP or relevant sub-plans. Example activities include vegetation removal and water discharge.	Section 5.7 Environmental Hold Points + Table 5-1 Hold Points
b	Table 1.4 provides the structure for these hold points to be included in the CEMP as well as an initial list of hold points which will be implemented.	Section 5.7 Environmental Hold Points + Table 5-1 Hold Points
3.10 Training, Awareness and Competence		
a.	Principal Contractors are responsible for determining the training needs of their personnel. As a minimum this will include site induction, regular toolbox talks and topic specific environmental training as follows	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)
i.	The site induction will be provided to all site personnel and will include, as a minimum:	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)
o	Training purpose, objectives and key issues;	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)
o	Contractor's environmental and sustainability policy(s) and key performance indicators;	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)
o	Due diligence, duty of care and responsibilities;	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)
o	Relevant conditions of any environmental licence and/or the relevant conditions of approval;	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)

ID	CEMF Requirement	Document Reference
o	Site specific issues and controls including those described in the environmental procedures;	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)
o	Reporting procedure(s) for environmental hazards and incidents; and	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)
o	Communication protocols for interactions with community and stakeholders.	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)
ii.	Toolbox talks will be held on a regular basis in order to provide a project or site wide update, including any key or recurring environmental issues; and	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)
iii.	Topic specific environmental training should be based upon, but is not limited to, Issue specific subplans required under Section 3.5 (a) (i-xi).	Sections 6.2 (Induction), 6.3 (Pre-starts / toolbox), 6.4 (Role-based training)
b.	Principal Contractors will conduct a Training Needs Analysis which:	Section 6.1 Training Needs Analysis + Appendix E
i.	Identifies that all staff are to receive environmental training;	Section 6.1 Training Needs Analysis + Appendix E
ii.	Identifies the competency requirements of staff that hold environmental roles and responsibilities documented within the Construction Environmental Management Plan and sub-plans;	Section 6.1 Training Needs Analysis + Appendix E
iii.	Identifies appropriate training courses/events and the frequency of training to achieve and/or maintain these competency requirements; and	Section 6.1 Training Needs Analysis + Appendix E
iv.	Implements and documents as part of the CEMP a training schedule that plans attendance at environmental training events, provides mechanisms to notify staff of their training requirements, and identifies staff who do not attend scheduled training events or who have overdue training requirements.	Section 6.1 Training Needs Analysis + Appendix E
3.11 Emergency and Incident Response		
a.	Principal Contractors undertaking work in accordance with an EPL must develop and implement a Pollution Incident Response Management Plan, in accordance with the requirements of the POEO Act. Contractors' emergency and incident response procedures will also be consistent with any relevant Sydney Metro procedures and will include:	Section 1.5.2.1 + Section 8 Incidents, Non-Compliances and Emergency Response (incl. 8.1.2.1.3) + Appendix F
i.	Categories for environmental emergencies and incidents;	Section 8 Incidents, Non-Compliances and Emergency Response + Appendix F
ii.	Notification protocols for each category of environmental emergency or incident, including notification to Sydney Metro and notification to owners / occupiers in the vicinity of the incident. This is to include relevant contact details;	Section 8 Incidents, Non-Compliances and Emergency Response + Appendix F
iii.	Identification of personnel who have the authority to take immediate action to shut down any activity, or to affect any environmental control measure (including as directed by an authorised officer of any regulator or government department);	Section 8 Incidents, Non-Compliances and Emergency Response + Appendix F
iv.	A process for undertaking appropriate levels of investigation for all incidents and the identification, implementation and assessment of corrective and preventative actions; and	Section 8 Incidents, Non-Compliances and Emergency Response + Appendix F
v.	Notification protocols of incidents to relevant regulators and stakeholders including (but not limited to) the EPA or DPE that are made by the Contractor or Sydney Metro.	Section 8 Incidents, Non-Compliances and Emergency Response + Appendix F
b.	The Contractor will make all personnel aware of the plan and their responsibilities.	Section 8 Incidents, Non-Compliances and Emergency Response + Appendix F
3.12 Independent Environmental Representatives		
a	Sydney Metro will engage Independent Environmental Representatives (ERs) as required under the applicable planning approval to undertake the following, along with any additional roles as required:	Section 4.4.1 Environmental Representative + Section 9.1.1 ER Inspections
i	Review, provide comment on and endorse (where required) any relevant environmental documentation to verify it is prepared in accordance with relevant environmental legislation, planning approval conditions, Environment Protection Licences, relevant standards and this CEMP;	Section 4.4.1 Environmental Representative + Section 9.1.1 ER Inspections
ii	Monitor and report on the implementation and performance of the above mentioned documentation and other relevant documentation;	Section 4.4.1 Environmental Representative + Section 9.1.1 ER Inspections
iii	Provide independent guidance and advice to Sydney Metro and the Contractors in relation to environmental compliance issues and the interpretation of planning approval conditions;	Section 4.4.1 Environmental Representative + Section 9.1.1 ER Inspections
iv	Be the principal point of advice for the DPE in relation to all questions and complaints concerning the environmental performance of the project;	Section 4.4.1 Environmental Representative + Section 9.1.1 ER Inspections
v	Ensure that environmental auditing is undertaken in accordance with all relevant project requirements; and	Section 4.4.1 Environmental Representative + Section 9.1.1 ER Inspections
vi	Recommend reasonable steps, including 'stop works', to be taken to avoid or minimise adverse environmental impacts.	Section 4.4.1 Environmental Representative + Section 9.1.1 ER Inspections
3.13 Independent Acoustic Advisor		
a	Sydney Metro will engage Independent Acoustic Advisors (AAs) where required under the applicable planning approval to undertake the following, along with any additional roles as required:	Section 4.4.2 Acoustic Advisor
i	Review, provide comment on and endorse (where required) any relevant noise and vibration documentation to verify it is prepared in accordance with relevant environmental legislation, planning approval conditions, Environment Protection Licences, relevant standards and this CEMP;	Section 4.4.2 Acoustic Advisor
ii	Monitor and report on the implementation and performance of the above-mentioned noise and vibration documentation;	Section 4.4.2 Acoustic Advisor
iii	Provide independent guidance and advice to Sydney Metro and the Contractors in relation to noise and vibration compliance issues and the interpretation of planning approval conditions;	Section 4.4.2 Acoustic Advisor
iv	Ensure that noise and vibration auditing is undertaken in accordance with all relevant project requirements; and	Section 4.4.2 Acoustic Advisor
v	Recommend reasonable steps, including 'stop works', to be taken to avoid or minimise adverse noise and vibration impacts.	Section 4.4.2 Acoustic Advisor
3.14 Roles and Responsibilities		
a	In relation to Roles and Responsibilities the CEMP will:	Section 4 Environmental Governance, Roles and Responsibilities
i	Describe the relationship between the Principal Contractor, Sydney Metro, key regulatory stakeholders, Independent Environmental Representative (ER), Independent Environmental Auditor (IEA) and if relevant to the project the Independent Acoustic Advisor (AA) and the Independent Certifier;	Section 4 Environmental Governance, Roles and Responsibilities

ID	CEMF Requirement	Document Reference
ii	For each role that has environmental accountabilities or responsibilities, including key personnel, provide a tabulated description of the authority and roles of key personnel, lines of responsibility and communication, minimum skill level requirements and their interface with the overall project organisational structure;	Section 4 Environmental Governance, Roles and Responsibilities
iii	Provide details of each specialist environment, sustainability or planning consultant who is employed by the Principal Contractor including the scope of their work; and	Section 4 Environmental Governance, Roles and Responsibilities
iv	Where relevant, provide an overview of the role and responsibilities of the Independent Environmental Representative, Independent Environmental Auditor, Independent Acoustic Advisor, the Independent Certifier and other regulatory stakeholders.	Section 4 Environmental Governance, Roles and Responsibilities
b	All sub-contractors engaged by the Principal Contractor will be required to operate within the EMS documentation of that Principal Contractor.	Section 4.5 Selection and Management of Subcontractors
3.15 Environmental Monitoring, Inspections and Auditing		
a	Issue specific environmental monitoring will be undertaken as required or as additionally required by any approval, permit or licence conditions.	Section 9 Monitoring, Inspections, Auditing and Reporting
b	The results of any monitoring undertaken as a requirement of a licence or permit that is required to be published will be published on the Principal Contractor's, or a project specific, website within 14 days of obtaining the results (or as required by a monitoring program).	Section 9 Monitoring, Inspections, Auditing and Reporting
c	Environmental inspections will include:	Section 9 Monitoring, Inspections, Auditing and Reporting
i	Surveillance of environmental mitigation measures by the Site Foreman; and	Section 9 Monitoring, Inspections, Auditing and Reporting
ii	Periodic inspections by the Principal Contractor's Environment Manager (or delegate) to verify the adequacy of all environmental mitigation measures. This will be documented in a formal inspection record.	Section 9 Monitoring, Inspections, Auditing and Reporting
d	Regular site inspections by the Environmental Representatives, Acoustic Advisors and Sydney Metro representatives at a frequency to be agreed with the Principal Contractor.	Section 9 Monitoring, Inspections, Auditing and Reporting
e	Principal Contractors must undertake internal environmental audits. The scope will include:	Section 9 Monitoring, Inspections, Auditing and Reporting
i	Compliance with any approval, permit or licence conditions;	Section 9 Monitoring, Inspections, Auditing and Reporting
ii	Compliance with the E&SMS, CEMP, SMP, sub-plans and procedures;	Section 9 Monitoring, Inspections, Auditing and Reporting
iii	Community consultation and complaint response;	Section 9 Monitoring, Inspections, Auditing and Reporting
iv	Environmental training records; and	Section 9 Monitoring, Inspections, Auditing and Reporting
v	Environmental monitoring and inspection results.	Section 9 Monitoring, Inspections, Auditing and Reporting
f	Sydney Metro (or an independent environmental auditor) will also undertake periodic audits of the Principal Contractor's E&SMS, including this Construction Environmental Management Framework.	Section 9 Monitoring, Inspections, Auditing and Reporting
3.16 Environmental Non-compliances		
a	Principal Contractors will document and detail any non-compliances with the requirements of any legislative or other requirements. Sydney Metro will be made aware of all non-compliances in accordance with the Sydney Metro Environmental Incident and Non-compliance Reporting Procedure in a timely manner.	Section 1.5.3 Gamuda Environmental Management System Section 1.5.4 Standards, Guidelines and Technical Frameworks Section 8.1 (framework) incl. 8.1.3 Non-Compliances and Environmental Issues
b	Principal Contractors will develop and implement corrective actions to rectify the non-compliances in order to prevent a re-occurrence of the non-compliance. Contractors will also maintain a register of non-compliances and associated corrective actions.	Section 1.5.3 Gamuda Environmental Management System Section 1.5.4 Standards, Guidelines and Technical Frameworks Section 8.1 (framework) incl. 8.1.3 Non-Compliances and Environmental Issues
c	Sydney Metro, the Acoustic Advisor or the Environmental Representative may raise non-compliances against environmental requirements. In these circumstances the Principal Contractor must abide by any requirements of Sydney Metro's procedure for managing non-compliances.	Section 1.5.3 Gamuda Environmental Management System Section 1.5.4 Standards, Guidelines and Technical Frameworks Section 8.1 (framework) incl. 8.1.3 Non-Compliances and Environmental Issues
3.17 Environmental Records and Compliance Reporting		
a	Principal Contractors will maintain appropriate records of the following	Section 10.1 Environmental Records and Data Management + Section 9.4 Reporting
i	Site inspections, audits, monitoring, reviews or remedial actions;	Section 10.1 Environmental Records and Data Management + Section 9.4 Reporting
ii	Documentation as required by performance conditions, approvals, licences and legislation;	Section 10.1 Environmental Records and Data Management + Section 9.4 Reporting
iii	Modifications to site environmental documentation (eg CEMP, sub-plans and procedures); and	Section 10.1 Environmental Records and Data Management + Section 9.4 Reporting
iv	Other records as required by this Construction Environmental Management Framework.	Section 10.1 Environmental Records and Data Management + Section 9.4 Reporting
b	Records must be accessible onsite for the duration of works.	Section 10.1 Environmental Records and Data Management + Section 9.4 Reporting
c	Additionally, records will be retained by the Principal Contractor for a period of no less than 7 years. Records will be made available in a timely manner to Sydney Metro (or their representative) upon request.	Section 10.1 Environmental Records and Data Management + Section 9.4 Reporting
d	Compliance reports detailing the outcome of any environmental surveillance activity including internal and external audits (refer to Section 3.15) will be produced by the Principal Contractors Environment Manager or delegate. These reports will be submitted to Sydney Metro at an agreed frequency.	Section 10.1 Environmental Records and Data Management + Section 9.4 Reporting
3.18 Review and Improvement of the Environment and Sustainability Management System		
a	Principal Contractors will ensure the continual review and improvement of the management systems. This will generally occur in response to:	Section 10.3 Management Review / Continual Improvement + Section 10.2 CEMP Review and Revision

ID	CEMF Requirement	Document Reference
i	Issues raised during environmental surveillance and monitoring;	Section 10.3 Management Review / Continual Improvement + Section 10.2 CEMP Review and Revision
ii	Expanded scope of works;	Section 10.3 Management Review / Continual Improvement + Section 10.2 CEMP Review and Revision
iii	Environmental incidents; and	Section 10.3 Management Review / Continual Improvement + Section 10.2 CEMP Review and Revision
iv	Environmental non-conformances.	Section 1.5.3 Gamuda Environmental Management System Section 1.5.4 Standards, Guidelines and Technical Frameworks Section 8.1 (framework) incl. 8.1.3 Non-Compliances and Environmental Issues
b	A formal review of the management systems by the Principal Contractor's Senior Management Team will also occur on an annual basis, as a minimum. This review shall generate actions for the continual improvement of the systems and supporting management plans.	Section 10.3 Management Review / Continual Improvement + Section 10.2 CEMP Review and Revision
4.1 Working Hours		
a	Standard working hours are between 7am – 6pm on weekdays and 8am – 1pm on Saturdays (or as identified in the planning approval).	Noise & Vibration Sub-Plan (via Section 2.3 Sub-Plans) + Section 5.7 Hold Points (Out of Hours Work
b	Works which can be undertaken outside of standard construction hours without any further approval include:	Noise & Vibration Sub-Plan (via Section 2.3 Sub-Plans) + Section 5.7 Hold Points (Out of Hours Work
i	Those which have been described in respective environmental assessments as being required to take place 24/7. For example, tunnelling and underground excavations and supporting activities will be required 24/7;	Noise & Vibration Sub-Plan (via Section 2.3 Sub-Plans) + Section 5.7 Hold Points (Out of Hours Work
ii	Works which are determined to comply with the relevant Noise Management Level at sensitive receivers;	Noise & Vibration Sub-Plan (via Section 2.3 Sub-Plans) + Section 5.7 Hold Points (Out of Hours Work
iii	The delivery of materials outside of approved hours as required by the Police or other authorities (including Sydney Roads) for safety reasons;	Noise & Vibration Sub-Plan (via Section 2.3 Sub-Plans) + Section 5.7 Hold Points (Out of Hours Work
iv	Where it is required to avoid the loss of lives, property and / or to prevent environmental harm in an emergency; and	Noise & Vibration Sub-Plan (via Section 2.3 Sub-Plans) + Section 5.7 Hold Points (Out of Hours Work
v	Where written agreement is reached with all affected receivers.	Noise & Vibration Sub-Plan (via Section 2.3 Sub-Plans) + Section 5.7 Hold Points (Out of Hours Work
c	Principal Contractors may apply for EPA approval to undertake works outside of normal working hours under their respective Environment Protection Licences. Notification of any licence variation is to be given in writing to Sydney Metro, the Independent Environmental Representative and if applicable the Independent Acoustic Advisor prior to the approved works being undertaken.	Noise & Vibration Sub-Plan (via Section 2.3 Sub-Plans) + Section 5.7 Hold Points (Out of Hours Work
4.2 Construction Traffic Management		
a	The management of traffic impacts due to construction is addressed in the Construction Traffic Management Framework (CTMF) which sets out system requirements for management plans and other associated documentation. Requirements in the CTMF must be followed by Principal Contractors.	Traffic Management Plan (via Section 2, Figure 2 1: Document Map)
b	The Construction Traffic Management Framework (CTMF) sets out the approach to managing traffic impacts during the construction of the Sydney Metro projects. The CTMF also outlines contractor requirements, with reference to third party agreements. Principal Contractors are required to produce these documents in accordance with the CTMF.	Traffic Management Plan (via Section 2, Figure 2 1: Document Map)
4.3 Site Layout		
a	Principal Contractors will consider the following in the layout of construction sites:	Appendix I Construction Site Layouts + Appendix H Environmental Control Maps
i	The location of noise intensive works and 24 hour activities in relation to noise sensitive receivers;	Appendix I Construction Site Layouts + Appendix H Environmental Control Maps
ii	The location of site access and egress points in relation to noise and light sensitive receivers, especially for sites proposed to be utilised 24 hours per day;	Appendix I Construction Site Layouts + Appendix H Environmental Control Maps
iii	The use of site buildings to shield noisy activities from receivers;	Appendix I Construction Site Layouts + Appendix H Environmental Control Maps
iv	The use of noise barriers and / or acoustic sheds where feasible and reasonable for sites proposed to be regularly used outside of daytime hours;	Appendix I Construction Site Layouts + Appendix H Environmental Control Maps
v	Aim to minimise the requirement for reversing, especially of heavy vehicles; and	Appendix I Construction Site Layouts + Appendix H Environmental Control Maps
vi	Any applicable requirements of the Construction Traffic Management Framework (CTMF).	Appendix I Construction Site Layouts + Appendix H Environmental Control Maps
4.4 Urban Design of Temporary Works		
a.	Principal Contractors will ensure as a minimum:	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
i	Temporary construction works consider urban design and visual impacts, including:	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design

ID	CEMF Requirement	Document Reference
o	Artwork, graphics and images to enhance the visual appearance of temporary works in high visibility locations;	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
o	Project information to raise awareness on benefits, explain the proposed works at each site and provide updates on construction progress;	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
o	Community information, including contact numbers for enquiries / complaints;	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
o	Signage and information to mitigate impacts on local businesses which may be obscured by the construction site; Sydney Metro advertising / public awareness campaigns;	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
o	Logos / branding, including Sydney Metro, NSW Government, and Contractor branding.	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
ii	The design of all temporary works will require Sydney Metro approval in relation to urban design and visual impacts and Sydney Metro will stipulate the design of hording artwork, including:	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
o	Sydney Metro advertising / public awareness campaigns; and	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
o	Logos / branding, including Sydney Metro, NSW Government, and Contractor branding.	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
b	Construction hoardings, scaffolding and acoustic sheds will be regularly inspected and kept clean and free of dust build up. Graffiti on construction hoardings, scaffolding or acoustic sheds will be removed or painted over promptly.	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
c	The principles of Crime Prevention Through Environmental Design will be applied to all works, including temporary works, that have a public interface.	Visual Amenity Management Sub-Plan (via Section 2.3) + Section 2.6 Environment in Design
4.5 Reinstatement		
a	Mitigation measures required for reinstatement will be incorporated into the CEMP and will include as a minimum:	Section 1.7 Scope of the CEMP (works covered / interfaces) + Section 2.6 Environment in Design (design / finish-works integration)
i	Principal Contractors will clear and clean all working areas and accesses at project completion;	Section 1.7 Scope of the CEMP (works covered / interfaces) + Section 2.6 Environment in Design (design / finish-works integration)
ii	At the completion of construction all plant, temporary buildings or vehicles not required for the subsequent stage of construction will be removed from the site;	Section 1.7 Scope of the CEMP (works covered / interfaces) + Section 2.6 Environment in Design (design / finish-works integration)
iii	All land, including roadways, footpaths, loading facilities or other land having been occupied temporarily will be returned to their pre-existing condition or better; and	Section 1.7 Scope of the CEMP (works covered / interfaces) + Section 2.6 Environment in Design (design / finish-works integration)
iv	Reinstatement of community spaces, infrastructure and services will occur as soon as possible after completion of construction.	Section 1.7 Scope of the CEMP (works covered / interfaces) + Section 2.6 Environment in Design (design / finish-works integration)

Table A-3 EMP Guideline Checklist

Requirement	Plan Reference
Document preparation and endorsement	Section 2.5 Stakeholder Consultation and Endorsement
Has the EMP been prepared in consultation with all relevant stakeholders as per the requirements of the conditions of consent? (Section 4.1)	Section 2.5 + Section 7 (consultation / agency / community)
Have the views of the relevant stakeholders been taken into consideration? Have appropriate amendments been made to the EMP and does the EMP clearly identify the location of any changes? (Section 4.1)	Section 2.5 + Section 7 (consultation / agency / community)
Has the EMP been internally approved by an authorised representative of the proponent or contractor? (Section 4.2)	Section 10.2 CEMP Review and Revision (change control)
Version and content	Section 10 Records and Document Control and Review (document control / approvals)
Does the EMP describe the proponent's Environmental Management Systems (EMS) (if any), and identify how the EMP relates to other documents required by the conditions of consent? (Section 3.5.1)	Section 1.5.3 Gamuda EMS + Figure 2-1 Document Map
Does the EMP include the required general content and version control information? (Section 3.1)	Section 10 Records and Document Control and Review
Does the EMP have an introduction that describes the project, scope of works, site location and any staging or timing considerations? (Section 3.2)	Sections 1.6, 1.7, 1.8
Does the EMP reference the project description? (Section 3.3)	Section 1.1 Project Overview + Figure 1-1 Project Overview
Does the EMP reference a Community and Stakeholder Engagement Plan (or similar) or include community and stakeholder engagement actions (if required)? (Section 3.4)	Section 7 Communication and Consultation
Have all other relevant approvals been identified? Has appropriate information been provided regarding how each approval is relevant? (Section 4)	Section 1.5 (incl. 1.5.1–1.5.2) + Appendix A
Has the environmental management structure and responsibilities been included? (Section 3.5.2)	Section 4
Does the EMP include processes for training of project personnel and identify how training and awareness needs will be identified? (Section 3.5.3)	Section 6.1 Training Needs Analysis + Appendix E
Does the EMP clearly identify the relevant legal and compliance requirements that relate to the EMP? (Section 3.5.3)	Section 1.5.2 Legislative Framework + Appendix B Legal Register
Does the EMP include all the conditions of consent to be addressed by the EMP and identify where in the EMP each requirement has been addressed? (Section 3.5.13)	Appendix A (this compliance matrix)
Have all relevant guidelines, policies and standards been identified, including details of how they are relevant? (Section 3.5)	Section 1.5.4 Standards, guidelines and Technical Frameworks
Is the process that will be adopted to identify and analyse the environmental risks included? (Section 3.5.5)	Section 5 Environmental Risk Management + Appendix D Risk and Aspects Register
Have all the environmental management measures in the EIA been directly reproduced into the EMP? (Section 3.5.7)	Section 5.6 Integration with Sub-Plans and SMART Actions
Have any additional environmental management measures been included in the EMP? (Section 3.5.7)	Section 5.6 Integration with Sub-Plans and SMART Actions
Have environmental management measures been written in committed language? (Section 3.5.7)	Section 5.6 Integration with Sub-Plans and SMART Actions
Have project environmental management measures, including hold points, been identified and included? (Section 3.5.6)	Section 5.7 Environmental Hold Points
Are relevant details of environmental monitoring that will be carried out included? (Section 3.5.8)	Section 2.4 Construction Monitoring Programs + Section 9
Have the components of any environmental monitoring programs been incorporated? (Section 3.5.8)	Section 2.4 Construction Monitoring Programs + Section 9
Are environmental inspections included? (Section 3.5.9)	Section 9.1 Environmental Inspections
Does the EMP document all relevant compliance monitoring and reporting requirements for the project? (Section 3.5.12 and 3.5.13)	Section 9.4 Reporting + Section 8 (incidents/non-compliance reporting)
Does the EMP describe the types of plans or maps (such as environmental control maps) that will be used to assist with the management of environmental matters on site? (Section 3.5.10)	Section 5.9 Environmental Control Maps + Appendix H
Does the EMP list environmental management documents? (Section 3.5.11)	Figure 2-1 Document Map + Section 2.3 Sub-Plans
Is an auditing program referenced? (Section 3.5.13)	Section 9.3 Auditing + 9.3.3 Audit Schedule
Does the EMP include the incident notification and reporting protocols that comply with the relevant conditions of consent? (Section 3.5.15)	Section 8 + Appendix F
Does the EMP identify the project role/position that is responsible for deciding whether an occurrence is an incident? (Section 3.5.15)	Section 8.1 (incident/non-compliance framework)
Does the EMP describe a corrective and preventative action process that addresses the requirements? (Section 3.5.16)	Section 1.5.4 Standards, Guidelines and Technical Frameworks + Section 8 Incidents, Non-Compliances and Emergency Response (incl. 8.1.3 Non-Compliances and Environmental Issues)
Does the EMP include details of a review and revision process that complies with the requirements? (Section 3.6)	Section 10.2 CEMP Review and Revision

Appendix B: Legal and Other Obligation Register

Act	Activity/aspect	Requirement	Section of Act	Where addressed
Aboriginal and Torres Strait Islander Heritage Protection Act 1984	Aboriginal heritage	Report any discovery of Aboriginal remains to the Federal Minister. Comply with the provisions of any declaration in relation to a significant Aboriginal area or object	s20 s22	Heritage Management Plan
Biodiversity Conservation Act 2016	Biodiversity	Do not harm or attempt to harm an animal that is of a threatened species, an animal that is part of a threatened ecological community or a protected animal. Do not pick a plant that is: - A threatened species - Part of a threatened ecological community - Protected - Do not damage a declared area of outstanding biodiversity value - Do not damage any habitat of a threatened species or threatened ecological community	s2.1 s2.2 s2.3	Flora and Fauna Management Procedure
Biosecurity Act 2015	Dealing with biosecurity matters including pests, weeds and diseases	Prevent, eliminate or minimise biosecurity risk posed by the biosecurity matter as far as reasonably practicable, if dealing with a biosecurity matter or carrier. Notification of prohibited matter events Notification of biosecurity events	s22 s30 s38	Flora and Fauna Management Procedure
Biosecurity Regulation 2017	Pests and diseases	Notification after becoming aware of, suspects or coming into the presence of any pest or diseases listed in Schedule 1.	s7	Flora and Fauna Management Procedure
Contaminated Land Management Act 1997	Polluted land	Notification to the EPA in the event of: - Conducting activities that have resulted in the contamination of land - Identifying that land is contaminated Notification is only required where: - The contaminant or any by-product of the contaminant has entered or will foreseeably enter neighbouring land, the atmosphere, groundwater or surface water - The contaminant meets levels identified by the regulations or guidelines in the neighbouring land, atmosphere, groundwater or surface water - The contaminant exceeds levels identified by the regulations or guidelines in the neighbouring land, atmosphere, groundwater or surface water - A guideline specifies a level of the contaminant in soils with respect to a current or approved use of the land and the level of the contaminant on or in any part of the soil on that land is equal to or above that specified in the guideline and a person has been, or foreseeably will be, exposed to the contaminant or any by-product of the contaminant - The contamination meets any other criteria that may be prescribed by the regulations to require notification	s60	Waste Management Plan Soil and Water Management Plan
Dangerous Goods (Road and Rail Transport) Act 2008	Hazards and risks	Dangerous goods to be transported in a safe manner	s9	Traffic Management Plan
Environmentally Hazardous Chemicals Act 1985	Hazards and risks	Obtain a permit prior to undertaking prescribed activities involving environmentally hazardous chemicals or a declared chemical waste	s28	Section 5.8 – Environmental Procedures, Permits and Forms; Section 2.3 – Waste Management Plan and Soil & Water Management Plan (as applicable)
Environmental Planning and Assessment Act 1979	All	Comply with the conditions of approval for the project and obtain the Minister's approval for any project modifications that are not consistent with the planning approval. Application of other provisions of the EP&A Act Approvals and legislation that does not apply Approvals and legislation that must be applied consistently	s5.14 s5.25 s5.22 s5.23 s5.24	Section 1.5 – Compliance Framework; Appendix A – Project Planning Approval Allocation Matrix; Section 1.3.4 – Further Changes to the Approved Project Appendix B – Legal and Other Obligation Register (this table) + Section 1.5.2 Legislative Framework
Environment Protection Biodiversity Conservation Act 1999 (Cth)	Biodiversity	Do not kill, injure or take a member of a listed threatened species without a permit	Part 13	Flora and Fauna Management Procedure
Fisheries Management Act 1994	Dredging or reclamation work	Written notification to the Minister required prior to carrying out any dredging or reclamation work.	s199	N/A, Section 1.8
	Threatened marine species	Not harm any fish or marine vegetation of a threatened species, population or ecological community.	s220ZA	Flora and Fauna Management Procedure
	Damage to critical habitat and habitat of threatened species, population or ecological community	Not by an act or omission do anything that causes damage to a critical habitat or habitat for a threatened species, population or ecological community	s220ZC s220ZD	Flora and Fauna Management Procedure

Act	Activity/aspect	Requirement	Section of Act	Where addressed
	Removal of mangroves for works at Duck Creek / A'Becketts Creek	Not harm any marine vegetation in a protected area, including mangroves, unless approved under a Part 7 <i>Fisheries Management Act</i> permit.	s205	Flora and Fauna Management Procedure
Heritage Act 1977	Discovery of a relic	The Heritage Council must be notified of the location of a relic if discovered, unless it is believed, on reasonable grounds, that the Heritage Council is aware of the location of the relic.	s146	Heritage Management Plan
Marine Pollution Act 2012	Potential transport of spoil on barge	Not cause oil to be discharged from ship into waters Maintain ship so that oil is not discharged into waters Not carry uncategorised noxious liquid substances as cargo Not cause an uncategorised noxious liquid substance to be carried as cargo Ensure that harmful substances are packaged and carried in accordance with the regulations Not jettison harmful substances in packaged form from ship to waters Not discharge garbage into waters from ship Report any reportable incident Carry appropriate emergency plan depending on the material carried on barge	s15 s16 s27 s28 s45 s46 s60 s61 Part 9 Part 10	No transport of spoil on barge is proposed.
National Greenhouse and Energy Reporting Act 2007 (Cth)	Greenhouse gas emissions and energy consumption	Report on greenhouse and energy usage data		Sustainability Management Plan
National Parks and Wildlife Act 1974	Notification of Aboriginal objects	Notify the NPWS within reasonable time of becoming aware of the location or discovery of certain Aboriginal objects.	s89a	Heritage Management Plan
Pesticides Act 1999	Use of pesticides	Do not: - Wilfully or negligently misuse pesticides in a manner that injures person or damages property, harms animals or plants, causes material harm to endangered, vulnerable or protected animals - Misuse pesticides in a manner that injures person or damages property, harms animals or plants, causes material harm to endangered, vulnerable or protected animals	Part 2 – Division 1 and Division 2	Flora and Fauna Management Procedure
Protection of the Environment Operations Act 1997	Licensing	Environment protection licence required for scheduled / non-scheduled activities. Works must not be carried out until an environment protection licence is issued.	s48 Schedule 1, cl. 33	Section 1.5.2.1
	Waste, leaks and spills and emissions – Tier 1 Offences	Not wilfully or negligently: - Dispose of waste in a manner that harms or is likely to harm the environment - Cause any substance to leak, spill or otherwise escape in a manner that harms or is likely to harm the environment - Cause any controlled substance to be emitted into the atmosphere	s115 s116 s117	Waste Management Plan Soil and Water Management Plan Air Quality Management Procedure
	Control equipment	Equipment must be maintained and controlled in a proper and efficient manner.	s167	All CEMP Sub-plans
	Notification of pollution incidents	Notification to the relevant authority (NSW EPA, Ministry of Health, SafeWork NSW or Fire and Rescue NSW) must be undertaken in the event of a pollution incident causing or threatening material harm.	s148	Section 8 – Incidents, Non-Compliances and Emergency Response; Appendix F – Environmental Emergency Response Procedure
	Pollution incident response management plans	The holder of an environment protection licence must prepare a pollution incident response management plan in accordance with Part 5.7A of the Act.	s153A	Section 1.5.2.1 and Section 8.1.2.1.3 (PIRMP to be prepared prior to EPL issuance)
	Water pollution	Do not cause water to become polluted	s120	Soil and Water Management Plan
	Air pollution	Ensure plant is maintained and operated in a proper and efficient manner so as to not cause air pollution Ensure maintenance work to plant is carried out in a proper and efficient manner so as to not cause air pollution Ensure the processing, handling, moving, storage and disposal of materials such as spoil is conducted in a manner that will not cause air pollution Not cause or permit the emission of any offensive odour	s124 s125 s126 s129	Air Quality Management Procedure
	Noise pollution	Operate and maintain plant in a proper and efficient manner so that plant does not cause emissions of noise that arise because of its poor maintenance or operation Ensure materials are processed, handled, moved, stored or disposed of in a proper and efficient manner so as to not cause the emission of noise as a result of not dealing with materials in a proper and efficient manner.	s139 s140	Noise and Vibration Management Plan
	Land pollution	Do not cause land to become polluted	s142A	Soil and Water Management Plan Waste Management Plan
	Waste	Not transport waste to a facility that cannot lawfully be used as a waste facility for that waste Not dispose of asbestos at a facility or location not lawfully able to receive asbestos waste Not reuse or recycle asbestos waste Not provide misleading or false information about waste	s143 s144 s144AAA s144AAB, s144AA	Waste Management Plan

Act	Activity/aspect	Requirement	Section of Act	Where addressed
Protection of the Environment Operations (Clean Air) Regulation 2021	Air emission concentrations	Air emissions not to exceed concentration levels detailed in Schedule 4	Schedule 4	Air Quality Management Procedure
Protection of the Environment Operations (Waste) Regulation 2014	Waste	Comply with record keeping requirements of the regulation. Comply with tracking requirements for waste, particularly obligations on transporter of waste Ensure vehicles transporting waste are properly fitted out so that waste does not escape the vehicle in transit Comply with the transportation and management requirements of asbestos waste	Part 3, Division 1 s45 s70 Part 7	Waste Management Plan
Roads Act 1993	Use of roads	Obtain approval from Transport for NSW prior to works on classified roads.	s138	Traffic Management Plan
Sydney Water Act 1994	Discharge into Sydney Water assets	Written agreement with Sydney Water is required prior to the discharge of any substances into Sydney Water-owned assets.	s49	Relevant water-related Sub-Plans under Section 2.3 (as applicable)
Sydney Water Regulation 1994	Plumbing and drainage work that effects Sydney Water assets	Permit required to do plumbing or drainage work that would affect Sydney Water assets such as connections to stormwater drains	s18	Relevant water-related Sub-Plans under Section 2.3 (as applicable)
Waste Avoidance and Resource Recovery Act 1997	Waste	Implement strategies to reduce waste volumes and report on waste generated		Waste Management Plan
Water Management Act 2000	Aquifer interference	Obtain aquifer interference approval for dewatering activities that require the extraction of more than three megalitres of groundwater per year GLC will continue to consult with DPE Water on the need for an aquifer interference approval	s91F	Groundwater Management Plan

Appendix C: Gamuda environmental policy

ENVIRONMENT

Gamuda's vision is to become an industry leader in the Australian infrastructure and construction sector by offering innovative, breakthrough and dependable solutions for large-scale public infrastructure projects and private investment opportunities by focusing on the company's core business of infrastructure design, construction, operation, and maintenance.

Our commitment

Gamuda values the natural environment and cultural heritage and is committed to providing net positive environmental outcomes. We support ecologically sustainable development and will adopt responsible environmental practices in all our business operations.

Our approach

Gamuda addresses its commitment to environmental sustainability and conservation through the consistent implementation of its Environmental Management System and by the following.

- Comply with relevant legal and regulatory obligations, standards, licences, and client requirements.
- Integrate environmental aspects into all project decision making, including planning, design, construction, and delivery.
- Enhance the awareness and knowledge of our employees, subcontractors, and supply chain to promote a shared culture of environmental accountability.
- Establish environmental objectives and targets, and transparently communicate our performance to ensure we continually improve.
- Focus on identifying and implementing opportunities throughout design and construction to identify and implement operational resource use efficiencies.
- Take proactive steps to prevent adverse environmental and heritage impacts.
- Minimise waste generation as far as reasonably practicable and prioritise the re-use and recycling of surplus materials.
- Investigate significant environment incidents and take immediate actions to prevent recurrence.
- Work collaboratively with all stakeholders to leave a positive environment and heritage legacy.

Yee Yew Weng



Executive Director

Gamuda Engineering Australia Pty Ltd

Gamuda (Australia) Branch

**Take Personal Ownership
Walk the Talk
Adopt Open, Honest Feedback
Demonstrate Real Teamwork
Develop Our People**

Appendix D: Environmental risk and aspects register

Table D-1 Initial Risk Register

Aspect	Construction activity	Potential Impact	Likelihood	Consequence	Initial Risk Rating	Indicative Mitigation Measures	Likelihood	Consequence	Residual risk rating
Traffic and Transport	Enabling and site establishment works, precinct works, station construction, finishing works, temporary lane closures, construction heavy vehicles (including deliveries and haulage)	Reduced safety, access and amenity for traffic, pedestrians and cyclists due to construction activities and vehicle movements	2	1	High (7)	- Implement the overarching and site-specific Construction Traffic Management Plans (CTMPs) - Construction Parking and Access Strategies - Maintenance or provision of alternative safe pedestrian and cyclist access around work sites - Establish Traffic and Transport Liaison Group(s) - Real-time monitoring of Spoil Haulage Heavy Vehicles (HVs) - Road Dilapidation Reports - Ongoing consultation with Local Council/s, Sydney Trains and other relevant stakeholders on disruptions to public transport (e.g. bus stop relocations and rail possessions) and street parking - Maintenance or provision of alternative property and business access arrangements - Ongoing consultation with emergency services and road authorities - Monitoring and adaptive management through stakeholder coordination and transport operator engagement.	3	1	Medium (4)
		Temporary reduced pedestrian and cyclist access or flows due to construction	2	2	Medium (5)		2	3	Low (2)
		Temporary impacts on reliability of light rail and bus services, including relocation of bus stops and diversions	2	2	Medium (5)		2	3	Low (2)
		Temporary impacts on reliability of suburban and intercity rail services to allow for construction activities to occur safely within the rail corridor	2	2	Medium (5)		2	3	Low (2)
		Temporary deterioration of traffic performance on surrounding road network, due to construction vehicles and temporary road or lane closures	1	2	High (8)		1	3	Medium (6)
		Temporary removal of parking spaces or loading zones affecting accessibility to transport, services and/or businesses	1	2	High (8)		2	3	Low (2)
		Access disruptions to private (commercial and/or residential) properties	2	2	Medium (5)		3	2	Low (3)
		Delays to emergency vehicles and obstructions to emergency vehicle access	2	1	High (7)		3	1	Medium (4)
		Temporary transport impacts during major events	2	2	Medium (5)		3	2	Low (3)
Noise and Vibration	Enabling and site establishment works, precinct works, aboveground and below ground station construction, vibration intensive activities	Disturbance to residences and other receivers from construction noise during standard construction hours.	1	1	High (9)	- Best practice construction methods and feasible and reasonable mitigation measures in accordance with the Construction Noise and Vibration Management Plan - Temporary noise barriers/hoarding at Project sites - Detailed Land Use Survey and Site-specific ECMs to identify nearby receiver types - Detailed Noise and Vibration Impact Statements (DNVIS) - Sydney Metro Out-of-Hours Work Protocol - Community Communication Plan/s - Selection of traffic routes which minimise movements past sensitive receivers and during night-time periods - Induct Project personnel on noise issues and safeguards - Selection of alternative methodologies or smaller equipment for vibration intensive works adjacent to sensitive receivers. - Monitoring during construction works in accordance with the Noise and Vibration Monitoring Program - Pre-construction Building Condition Surveys	2	3	High (8)
		Disturbance to residences and other receivers from construction noise outside standard construction hours.	1	1	High (9)		2	3	High (8)
		Increased road traffic noise from construction vehicles	2	2	Medium (5)		2	3	Low (2)
		Exceedances of human comfort or damage vibration levels	1	2	High (8)		2	2	Medium (5)
Non-Aboriginal Heritage	Enabling and site establishment works, precinct works, aboveground and below ground station construction, vibratory works	Direct impacts to known heritage and archaeology beyond those assessed in the Planning Approval	2	1	High (7)	- Implement the Heritage Management Plan, Noise and Vibration Management Plan and Noise and Vibration Monitoring Program - Sydney Metro Unexpected Heritage Finds Procedure - Induct Project personnel on heritage issues and safeguards - Site-specific ECMs to identify nearby heritage items and controls	3	1	Medium (4)
		Indirect impacts to views and setting of heritage items from temporary construction activities	2	2	Medium (5)		2	2	Medium (5)
		Damage to heritage items from vibration and settlement	3	3	Medium (4)		3	2	Low (3)

Aspect	Construction activity	Potential Impact	Likelihood	Consequence	Initial Risk Rating	Indicative Mitigation Measures	Likelihood	Consequence	Residual risk rating
		Potential impacts on unknown heritage items (e.g. archaeological items)	2	1	High (7)	- Site compounds to consider retaining of significant view lines for heritage items where possible - Engage Excavation Director - Implement Archaeological Research Design and Excavation Methodology (or Addendum)	2	2	Medium (5)
Aboriginal Heritage	Enabling and site establishment works, precinct works	Potential impacts on areas of known Aboriginal cultural value and archaeological sensitivity	2	2	Medium (5)	- Implement the Heritage Management Plan - Registered Aboriginal Parties (RAPs) consultation	3	2	Low (3)
		Potential impacts on unidentified Aboriginal heritage items	3	1	Medium (4)	- Sydney Metro Unexpected Heritage Finds Procedure - Engage Excavation Director - Implement Archaeological Research Design and Excavation Methodology (or Addendum)	3	3	Low (1)
Landscape and Visual Amenity	Enabling and site establishment works, aboveground station construction and precinct works	Temporary impacts on landscape character due to construction activities (e.g. loss of street trees, vehicle movements, traffic management measures, parking/use of plant and equipment etc.)	1	2	High (8)	- Implement the measures in the Visual Amenity Management Plan for temporary construction elements - Engage Landscape or Urban Designer - Monitoring and maintenance of construction site boundaries for graffiti, litter and weeds	1	3	Medium (6)
		Temporary impacts on visual amenity from private/public places as a result of continued use of construction site fencing, barricades, gates, sheds and/or hoardings	1	2	High (8)	Construction lighting orientated to minimise glare and light spill onto adjacent receivers in compliance with relevant Australian Standards	1	3	Medium (6)
		Continued light spill on surrounding receivers from construction sites at night	2	2	Medium (5)		2	3	Low (2)
Social and Business Impacts	Enabling and site establishment works, precinct works, aboveground station construction, finishing works	Temporary impacts on the way of life for local communities, local employees, visitors and vulnerable communities due to travel disruptions and changes to routines	2	2	Medium (5)	- Implement CTMPs, CPAS and Noise and Vibration Management Plan - Wayfinding signage	2	1	Low (2)
		Community concern with proposed changes to the character of local areas	2	2	Medium (5)	- Maintenance of property access (including residential and commercial businesses) - Ongoing stakeholder consultation	2	1	Low (3)
		Temporary impacts on community facilities or open space due to construction activities including changes to access and amenity	2	2	Medium (5)	- Community Benefit Plan/s - Small Business Owners Engagement Plan(s)	3	3	Low (1)
		Continued disruptions to adjacent businesses servicing, deliveries and customer access (including from traffic congestion and loss of parking)	2	1	High (7)	Coordination and scheduling of power and utility interruptions outside of typical business hours where feasible and reasonable	3	2	Low (3)
		Continued loss of power and utilities by planned or accidental shutdowns	2	2	Medium (5)		3	3	Low (1)
		reduced business visibility through the presence of construction activities, hoardings and other structures	2	2	Medium (5)		2	3	Low (2)
Biodiversity	Site establishment, precinct works, finishing works	Unauthorised disturbance of retained vegetation or works outside approved limits within inherited construction sites.	2	2	Medium (5)	- Implement controls detailed in Flora and Fauna Management Procedure - Pre-Clearing Inspections prior to removal of native vegetation with Ecologist supervision as required.	3	2	Low (3)
		Indirect impacts to fauna and flora from construction lighting, noise impacts, sedimentation, spread of weeds	3	2	Low (3)	- Site specific ECMs - Monitoring and management of weeds - Construction lighting designed to minimise light spill - Erosion and Sediment Control Plans (ESCPs)	3	3	Low (1)
Air Quality	Site establishment, aboveground station construction, precinct	Potential temporary impacts on local air quality associated with emissions from plant and equipment, and vehicle movements	2	2	Medium (5)	Implement controls detailed in the Air Quality Management Procedure including dust suppression	2	3	Low (2)

Aspect	Construction activity	Potential Impact	Likelihood	Consequence	Initial Risk Rating	Indicative Mitigation Measures	Likelihood	Consequence	Residual risk rating
	works, finishing works, construction heavy vehicle movements	Potential temporary impacts on local air quality associated with dust generation from exposed surfaces and stockpiling activities	2	2	Medium (5)	- Vehicles, equipment, machinery and facilities to be designed, operated and maintained to control the emissions - Induct and toolbox Project personnel on air quality issues and safeguards - Regular site inspections and visual monitoring of dust generation during activities - Weather monitoring to inform the need to modify or cease operations during high winds	2	3	Low (2)
		Impacts on surrounding receivers and complaints from the community and stakeholders	2	2	Medium (5)		2	3	Low (2)
Waste management and resource use (including spoil management)	Enabling and site establishment, station fit-out, utilities works, localised surface works, precinct works and finishing works.	Inappropriate management of construction waste and spoil including segregation, classification and disposal	2	2	Medium (5)	- Implement measures in the Waste Management Plan including the waste management hierarchy and waste classification process - Implement the Sustainability Management Plan - Designated site areas and receptacles for different waste streams - Waste and Material Tracking Register - Spoil haulage vehicle and material tracking system/s	3	3	Low (1)
		Inappropriate procurement, handling and storage of construction materials leading to wastage and surplus unused resources	3	2	Low (3)		3	3	Low (1)
		Increased demand on electricity, water supply or other materials (such as concrete, steel, fuel)	2	2	Medium (5)		2	3	Low (2)
Contamination	Enabling and site establishment works, precinct works, finishing works	Disturbance of contamination (soil in areas of additional footprint, or groundwater) during construction potentially causing impact to human health or receiving environments	2	2	Medium (5)	- Implement the Soil and Water Management Plan, including the Unexpected Finds Procedure for Contamination and Asbestos - Detailed Site Investigation/s, Sampling, Analysis and Quality Plan/s and Remediation Action Plan/s (including those completed by previous Sydney Metro Project phases) - Long-term Environmental Management Plan (LTEMP) and EMPs for residual contamination (including those completed by previous Sydney Metro Project phases) - Contaminated Land Management Register - Engage NSW EPA-Accredited Site Auditor	3	2	Low (3)
		Temporary mobilisation of airborne hazardous materials, odours or vapours as a result of uncovering contaminated soils or hazardous materials	2	2	Medium (5)		3	2	Low (3)
Soils and water quality	Enabling and site establishment, station construction, dewatering, precinct works, finishing works	Water quality impacts on nearby watercourses due to runoff from construction sites containing sediments, fuels or hazardous materials, concreting slurry and compounds, discharge of treated groundwater or contaminated water	2	2	Medium (5)	- Implement measures in Soil and Water Management Plan (including Spill Response, Unexpected Contamination Finds and Acid Sulfate Soils Management Procedures) - Implement the Surface Water Quality Monitoring Program - Progressive Erosion and Sediment Control Plans (ESCPs) - Water Pollution Impact Assessment - Construction Water Treatment Plants (WaTPs) designed to comply with the NSW Water Quality and River Flow Objectives and ANZECC/ANG guideline values - Routine site inspections of erosion and sediment control (ERSED) measures including after pre- and post-rainfall events - Additional testing in areas of potential acid sulfate soils (ASS) at The Bays Station	2	3	Low (2)
		Erosion of soils resulting in off-site sedimentation of waterways and associated decrease in water quality	2	2	Medium (5)		3	3	Low (1)
		Contamination of land or groundwater due to spills and leaks from hazardous materials (i.e. fuel and chemicals)	2	2	Medium (5)		3	3	Low (1)
		Exposure of acid sulfate soils resulting in off-site discharge of acidic or saline water, potentially resulting in exceedances of water quality trigger levels	2	2	Medium (5)		3	3	Low (1)
Groundwater	Minor localised excavations and residual groundwater seepage within inherited station structures	Failure to appropriately manage residual groundwater seepage or unexpected inflows may result in non-compliant discharge or localised water quality impacts.	2	2	Medium (5)	- Implement measures in Groundwater Management Plan and Groundwater Monitoring Program - Construction Water Treatment Plants (WaTPs) designed to comply with the NSW Water Quality and River Flow Objectives and ANZECC/ANG guideline values - Provision of make good provisions for registered groundwater users (if required) - Spill response procedures in the Soil and Water Management Plan	3	3	Low (1)
		Impacts on groundwater users due to reduced groundwater yields, reduced groundwater quality and/or direct impacts and damage to existing groundwater bores	3	2	Low (3)		3	3	Low (1)
		Impacts of groundwater dependent ecosystems	3	2	Low (3)		3	3	Low (1)
		Loss or changes to local water management performance due to unexpected seepage or discharge issues.	2	2	Medium (5)		3	3	Low (1)

Aspect	Construction activity	Potential Impact	Likelihood	Consequence	Initial Risk Rating	Indicative Mitigation Measures	Likelihood	Consequence	Residual risk rating
Ground settlement	Localised works within inherited station structures and residual settlement monitoring associated with previous construction phases.	Property damage as result of ground movement/settlement due to excavation	3	2	Low (3)	Pre-construction Building Condition Surveys	3	3	Low (1)
Hydrology and Flooding	Enabling and site establishment, adjustments to inherited flood protection infrastructure, precinct works and finishing works.	Temporary impacts on existing flood emergency management arrangements	3	1	Medium (4)	- Implement measures in Soil and Water Management Plan - Routine site inspections of flood protection measures and site drainage controls measures including after pre- and post-rainfall events - Stormwater and Flooding Management Plan/s - Emergency flood planning in consultation with the NSW State Emergency Service and relevant councils - Consideration of flooding risk minimisation for temporary construction site layouts and infrastructure including drainage - Temporary drainage at construction sites to be designed, where feasible and reasonable, to mitigate potential alterations to local runoff conditions due to construction sites	3	2	Low (3)
		Temporary impacts on flood-prone areas, and to stormwater and overland flows (e.g. increase in flood risk outside the construction sites) due to new structures or displacement of flood storage areas	2	2	Medium (5)		2	3	Low (2)
		Temporary flooding impacts on construction activities, including due to changes to flooding regimes	2	2	Medium (5)		3	2	Low (3)

Table D-2 Risk Consequence / Likelihood Matrix

Risk Consequence / Likelihood Matrix			Likelihood / Probability		
			Likely (1)	Possible (2)	Unlikely (3)
			- Almost certain to likely to occur during the business plan / contract / project, or - Less than "Monthly"	- Considered a possible occurrence during the business plan / contract / project, or - could occur within "1 to 3 years"	- Considered unlikely to occur during the business plan / contract / project, or - could occur in "4 to 10 years"
Risk and Opportunity Severity / Consequence	Significant (1)	Risk and Opportunity Ratings defined in tables below.	High (9)	High (7)	Medium (4)
	Moderate (2)	Risk and Opportunity Ratings defined in tables below.	High (8)	Medium (5)	Low (3)
	Minor (3)	Risk and Opportunity Ratings defined in tables below.	Medium (6)	Low (2)	Low (1)

Table D-3 Risk Consequence Rating

Risk Rating	Work health and safety	Environment	Quality	Financial Impact on Margin or PBT / Budget (\$AUD)	Time Schedule / Program Delays	Reputation / Community / Media	Governance / Legal / Regulatory	Management Impact
Significant	1 or more fatalities - Serious, permanent, or irreversible injury (multiple severe injuries, disablement to employees / public) - Major / significant safe working breach with extensive and immediate impact on one or more worksites	- Permanent /long-term damage (>12 months remediation, >\$50,000 cost, regulatory fines >\$50,000 major Environmental Regulator intervention). - Regulatory compliance failure leading to project delay or license revocation.	Rework costs greater than \$250k and/or 5% of the contract value	> \$10M loss (company level) > 10% over budget (project level)	- Equal to or greater than 12 months (> 5% of program) over the critical path program	- Serious public or media outcry with international coverage - Significant adverse community impact and condemnation - Stakeholder action will prevent achievement of the project objectives - Permanently reduced community access to services or employment	- Major / significant breach of regulation, policy, or code with fine or other regulatory action - Major / significant litigation / legal action / criminal penalty for company or executives - Major investigation by regulatory body - Indefinite closure or prolonged stoppage of project - Prosecution / Accreditation loss	- Critical / major event or disaster with significant impact on GA that requires considerable investment of senior management time and resources to handle over several months. - Full implementation of Gamuda Australia's Crisis Management Plan for days / weeks
Moderate	- Serious medical / hospital treating resulting in need of lost time / alternate work injury - Injury requiring long term ongoing treatment and rehabilitation - Moderate safe working breach likely to impact on operations	Moderate severity impact that is promptly reversible but affects area outside the site boundary. May require regulatory notification and remedial actions costing between \$10,000 - \$50,000.	Rework costs less than \$250k but greater than \$20k	\$100k – \$10M loss (company level) 1% - 10% over budget (project level)	- Equal to or greater than 6 months (1% - 5% of program) over the critical path program	- Significant adverse national media, public, Non-government organisations (NGO) - Considerable and prolonged adverse community impact and dissatisfaction publicly expressed - Stakeholder action will delay achievement of major elements of the project - Disciplinary action may be taken - Temporary reduced community access to services or employment	- Moderate breach of regulation, policy or code with investigation or report to authority - Moderate legal proceedings initiated - Shut down of part of a project due to regulatory breach - Prohibition notice - Several Improvement Notices - Enforceable Undertaking	- Significant event that requires implementation of crisis management plan at a project level with support function assistance - Event requires senior management time and resources for several weeks - Significant event that can be managed with careful attention, will require considerable time by project managers for several weeks.
Minor	- Medical treatment - First aid injury - Minor safe working issues	Low severity impact that is promptly reversible, contained within site boundary, and does not trigger external reporting obligations. Cost of remediation < \$10,000.	Rework costs less than or equal to \$20k	\$100k – \$10M loss (company level) <1% over budget (project level)	<1 month (<1% of program) over the critical path program	- Minor, adverse local public or media attention and complaints - Employees warned only - Lack of contribution to the community	- Minor legal issues, non-compliance and breaches of regulation, policy, or code of ethics - Minor technical breach, no fine or penalty.	- Local operation of contingency plans - Will require some local management attention over several days - Impact of event absorbed through normal activity

Note: If a combination of harm, loss or damage could occur, the worst-case consequence is to be selected.

***Notwithstanding these ratings, Gamuda Australia has a zero-tolerance approach for risks relating to Work, Health and Safety and Environment.**

Appendix E: Indicative Training Matrix

Training Topic	Project Director	Deputy Project Director	Construction Director	Station Managers	Design & Engineering Manager	Integration & Interface Manager	Stakeholder & Community Engagement Manager	Commercial Director	Logistics & HVNL Manager	Site Engineers / Superintendents	Environment & Sustainability Manager	Environment Operations & Approvals Lead	Senior Environment Advisor / Advisor
Project induction	X	X	X	X	X	X	X	X	X	X	X	X	X
CEMP onboarding	X	X	X	X	X	X	X			X	X	X	X
Planning Approval obligations	X	X	X	X	X	X	X	X		X	X	X	X
Environmental Risk & Aspects Register	X	X	X	X	X	X				X	X	X	X
Environmental Hold Points	X	X	X	X		X				X	X	X	X
Permits & authorisations		X	X	X		X				X	X	X	X
ECMs / ESCPs / work area constraints			X	X		X			X	X	X	X	X
Incident + non-compliance reporting & escalation	X	X	X	X		X	X			X	X	X	X
Emergency spill response			X	X					X	X	X	X	X
Noise & vibration: mitigation requirements and OOHw workflow	X	X	X	X		X	X			X	X	X	X
Construction Noise & Vibration Monitoring Program			X	X						X	X	X	X
Dewatering / water treatment / discharge & reuse			X	X						X	X	X	X
Erosion & sediment controls			X	X						X	X	X	X
Unexpected, contaminated land / asbestos finds procedure			X	X						X	X	X	X
Heritage protection and unexpected finds procedure			X	X						X	X	X	X
Waste management			X	X					X	X	X	X	X
Spoil management			X	X		X			X	X	X	X	X
Air quality / dust / emissions controls			X	X			X		X	X	X	X	X
Visual amenity / light spill controls			X	X			X			X	X	X	X
Community interface and complaints management	X	X	X	X		X	X	X	X	X	X	X	X
Environment in Design (EiD) and change control / consistency assessment triggers	X	X			X	X		X			X	X	X
Subcontractor environmental management			X	X		X		X	X	X	X	X	X
Interface management	X	X	X	X	X	X	X	X	X	X	X	X	X
Monitoring / inspections / audits / reporting	X	X	X	X				X		X	X	X	X
ESC Blue Book Training											X	X	X
ICAM or similar incident investigation training											X	X	
ISAP – Infrastructure Sustainability Assessment Practitioner											X		
Green Star Accredited Professional (GSAP)											X		
Lead Environmental Auditor (ISO 14001/19011)											X	X	
IS Rating Skills (ISAP pathway)											X		

Appendix F: Environmental Emergency Response Procedure

Purpose

This procedure outlines the response to environmental emergencies during the Stations Package West (SPW) works. It is designed to supplement the *Project Emergency Response Plan* and ensures compliance with CEMF Section 3.11.

Roles and Responsibilities (Aligned with SPW CEMP Section 4.2)

- Project Director: Accountable for resource allocation and authorising notifications to Sydney Metro/Regulators.
- Construction Director / Station Manager: Responsible for site-level implementation of "Stop Work" orders and mobilising plant/labour for containment
- Environment & Sustainability Manager (ESM): Authorised to classify incidents, notify the ER/Regulators, and oversee remediation
- Site Supervisor: First responder; authority to stop work and deploy immediate controls

Emergency Response Scenarios

Emergency Scenario	Preparation / Prevention	Response Actions	Responsibility
Adverse Dust Event (High Winds)	Monitor forecast for winds > 16m/s. Schedule dust-generating works for calm periods.	STOP WORK: Cease dust-generating activities under direction of the Station Manager. SUPPRESS: Deploy additional water carts/misters immediately. COVER: Secure stockpiles and exposed surfaces.	Station Manager / Site Supervisor
Discovery of Asbestos / Contamination	Review Detailed Site Investigation (DSI) reports. Asbestos awareness training in induction. Unexpected Find Procedure available	STOP WORK: Quarantine the suspected area immediately. ISOLATE: Establish exclusion zone (barrier tape) COVER: Cover with geofabric/plastic if safe to prevent airborne fibres. NOTIFY: Contact ESM to engage Hygienist for clearance.	Site Supervisor / ESM
Flooding / Severe Rain	Monitor rainfall forecast (> 100mm or > 1 in 5 ARI). Store chemicals in sealed containers/bunds.	SECURE: Remove plant/chemicals from low lying areas or basement levels. DIVERT: Check site drainage to prevent flooding of station box or neighbours. INSPECT: Check erosion controls (sandbags/bunds) and repair immediately if safe.	Station Manager / Site Supervisor
Failure of Erosion and Sediment Controls	Regular inspections of silt fences and sumps. Ensure WaTP and sumps have capacity. Sufficient emergency response materials (e.g. additional sandbags), labour and/or plant/equipment available on site	CONTAIN: Install emergency sandbags/coir logs to contain breach. PUMP: Water in damaged sump/control to be pumped to backup storage or WaTP. REPAIR: Controls to be repaired within 24 hours of detection.	Site Supervisor / Environment Advisor

Emergency Scenario	Preparation / Prevention	Response Actions	Responsibility
Minor Spill (< 20L)	SDS available on site. Spill kits located at all work fronts. Spill response induction / training for workforce	CONTAIN: Use spill kit absorbents or sandbags to bund the spill. CLEAN: Sweep up absorbent material (do not hose down). DISPOSE: Dispose of waste as contaminated waste. REPORT: ESM to notify Sydney Metro	Site Supervisor / Workforce / Environment Advisor / ESM
Major Spill (> 20L) or Discharge to Water	Emergency contact numbers displayed. WaTP inline monitoring and auto-shutoff tested. Sufficient emergency response materials (e.g. spill kit materials, pumps) Spill response induction / training for workforce	STOP SOURCE: Upright drum, close valve, or hit Emergency Stop on WTP. CONTAIN: Construct earth bund or deploy boom to protect drains/waterways NOTIFY: Notify Station Manager and ESM immediately. ESCALATE: Call Fire Brigade (000) if beyond site control REPORT: ESM to notify Sydney Metro and ER. Notification to EPA if "Material Harm" threatens.	Station Manager / ESM
Vibration Structural Damage	Pre-construction Condition Surveys. Safe working distances established. Proactive vibration testing in accordance with Noise and Vibration Monitoring Program	STOP WORK: Cease vibration-generating activity immediately. SECURE: Secure area if structural integrity is compromised ASSESS: Engage structural engineer to assess damage before restarting.	Station Manager / ESM
Unapproved Clearing / Vegetation Damage	Clearly demarcate "No Go Zones" on Environmental Control Maps (ECMs).	STOP WORK: Cease activity in the vicinity ASSESS: Engage Ecologist/Arborist to assess damage. REPORT: ESM to report to Project Director and Sydney Metro.	Site Supervisor / Environment Advisor
Injury to Fauna	Pre-clearing inspections Fauna handling procedure in induction.	STOP WORK: Cease activity in immediate area CONTACT: Contact WIRES or local vet for handling/transport. INSPECT: Re-inspect area before work recommences.	Site Supervisor / Environment Advisor
Unapproved Damage to Heritage items	Heritage induction for all ground workers. No-go zones for known heritage and archaeology Unexpected Finds Procedure available.	STOP WORK: Cease work in the immediate vicinity. PROTECT: Install fencing/screening to protect the item. NOTIFY: Contact Excavation Director / Heritage Specialist to assess.	Site Supervisor / ESM

Emergency Contact List (To be populated on site)

- **Emergency Services:** 000
- **Sydney Metro Environment Manager:** Ari Stypel
- **Gamuda Environment & Sustainability Manager:** Kieran Kerr
- **EPA Pollution Line:** 131 555
- **Gamuda Project Director:** Richard Pertaccia
- **24hr Community Complaints:** 1800 612 173

Appendix G: Weekly Environment and Sustainability inspection

ENVIRONMENT AND SUSTAINABILITY INSPECTION

Project:					
Inspection Type	☐ Weekly	☐ Pre-Work	☐ Weather	☐ Shut down	☐ Other
Inspection Scope					
Date:		Start Time:		End Time:	
Attendees: (List both Gamuda Australia (GA) and Subcontractor representatives)	Name		Company		

Observations						
Item	Yes	No	N/A	Comments	Timeline	
General						
All Environment No-Go zones are well delineated and protected.	☐	☐	☐			
All permits in place (discharge, enter no-go zones, clearing, out of hours).	☐	☐	☐			
Environmental Control Map is approved and displayed in a prominent location on site	☐	☐	☐			
Rainfall forecast is monitored and communicated to the site team when required (e.g., if rainfall is expected to exceed 20mm)	☐	☐	☐			
Soil and Water						
An ESCP is in place and up-to-date and reflects the current conditions and staging of works.	☐	☐	☐			
Drains are operating as intended.	☐	☐	☐			
Upstream clean water diversions are in place.	☐	☐	☐			
Functioning sediment controls (including sediment traps and fences) are in place and are checked after every rain event.	☐	☐	☐			
All sumps, holding tanks, ponds, wheel wash pits, fish tanks, and basins are functional with no risk of overtopping.	☐	☐	☐			
Stockpiles are labelled and located away from traffic areas and watercourse.	☐	☐	☐			
Clean and contaminated spoil are separated.	☐	☐	☐			
Stockpiles are stabilised if they are to be in place for more than 10 days.	☐	☐	☐			

ENVIRONMENT AND SUSTAINABILITY INSPECTION

Stockpiles are covered with geotextile linings and soil bindings and tarps used are secure and functional.	☐	☐	☐		
Construction water is managed appropriately, including treating and testing on-site where required and disposing of wastewater appropriately (i.e., wastewater register, and disposal dockets are up to date).	☐	☐	☐		
Concrete equipment washed down in lined or bunded areas and is secure with no overflows.	☐	☐	☐		
Vehicles and equipment are clear of leaks and spills with spill trays and bunds in place.	☐	☐	☐		
Wheel wash / shaker grid and hardstand areas are in place and functional at all exits.	☐	☐	☐		
Public roadways are clear of tracked sediment.	☐	☐	☐		
Mulch stockpiles are on level ground and are battered or wetted to keep it moist.	☐	☐	☐		
Flora and Fauna					
Boundary/clearing limits are clearly identified.	☐	☐	☐		
Retention trees are clearly identified, and drip zones are clear.	☐	☐	☐		
Weeds are being managed and invasion prevented i.e., Weed Register is updated accordingly.	☐	☐	☐		
All plant and equipment remain on haulage roads to minimise damage on vegetation.	☐	☐	☐		
Heritage					
All heritage items in vicinity are well protected.	☐	☐	☐		
Vibration monitoring is being undertaken where required.	☐	☐	☐		
Records of involvement of heritage specialist maintained.	☐	☐	☐		
Unexpected heritage finds are recorded in the 'Unexpected Heritage Find Recording Register' and form.	☐	☐	☐		
Heritage No-go Zones around the 'Shops' and 'Kia Ora' are delineated and protected.	☐	☐	☐		
Contamination					
Contaminated materials handled and stockpiled correctly (e.g., ACM segregated and covered).	☐	☐	☐		
Decontamination methods for plant and equipment are being implemented.	☐	☐	☐		

ENVIRONMENT AND SUSTAINABILITY INSPECTION

The movement of contaminated materials are being monitored and tracked (i.e., waste register and disposal dockets are up to date) with waste classification reports accompanying spoil moved offsite.	☐	☐	☐		
Contaminated stockpiles are banded, covered, separated, and signed to minimise dust.	☐	☐	☐		
Register of hazardous chemicals and dangerous goods is up to date, i.e., ChemWatch is current	☐	☐	☐		
Contaminated materials handled and stockpiled correctly (e.g., ACM segregated and covered).	☐	☐	☐		
Noise and Vibration					
Appropriate noise and vibration mitigation measures are implemented., e.g., hoardings, screens.	☐	☐	☐		
Where required (i.e., new activities), noise and vibration monitoring is being undertaken and records are maintained.	☐	☐	☐		
High noise works are being completed. If so, respite is being provided for high noise works e.g., 3/1.	☐	☐	☐		
Vehicles encountered upon inspections have non-tonal reversing alarms in use, including visitor vehicles.	☐	☐	☐		
If vibration intensive equipment(s) are being used, the equipment within the minimum working distance.	☐	☐	☐		
Air Quality					
Effective dust suppression in place (e.g., water carts, misters).	☐	☐	☐		
Exposed areas are stabilised when not in use e.g., using soil binders	☐	☐	☐		
Visible exhaust emissions are less than 10 seconds from all machinery.	☐	☐	☐		
No odour detectable at site boundary.	☐	☐	☐		
Unnecessary engine idling is restricted.	☐	☐	☐		
Waste					
Waste is segregated and bins are maintained (not overflowing).	☐	☐	☐		
Waste removal is tracked, and records kept.	☐	☐	☐		
Loads are covered prior to leaving site (including spoil haulage).	☐	☐	☐		
Groundwater					

ENVIRONMENT AND SUSTAINABILITY INSPECTION

Approved discharge location is stabilised (i.e., embankment is secure) and route is clear of obstructions.	☐	☐	☐		
Monitoring of groundwater levels and quality are up to date and recorded.	☐	☐	☐		
Groundwater Dependent Ecosystems (GDEs) are monitored for impacts associated with groundwater drawdown, contamination, and increased salinity.	☐	☐	☐		
Water Treatment Plant					
WTP is operational and in-line monitoring sensors are active.	☐	☐	☐		
In-line monitoring sensor data is up to date in the water quality monitoring register.	☐	☐	☐		
Flowmeter data recording intake and discharge volumes are tracked in water discharge records.	☐	☐	☐		
Sampling of WTP is undertaken as required.	☐	☐	☐		
Hazardous Substances					
Spill kits are readily available and fully stocked.	☐	☐	☐		
Hazardous substances are stored in bunded containers, away from waterways and drains. Bunds are empty.	☐	☐	☐		
Refuelling and concrete wash out is located away from waterways or drainage lines.	☐	☐	☐		
Resource Use					
Water use is minimised where possible.	☐	☐	☐		
All timber is reused, recycled, or sustainably sourced (i.e., FSC or PEFC certified).	☐	☐	☐		
Where possible, site won material is being reused on-site., e.g., ENM or VENM.	☐	☐	☐		
People and Place					
Site security, and well-maintained fencing/hoarding is in place, e.g., no graffiti.	☐	☐	☐		
Site hoarding in place and required information displayed.	☐	☐	☐		
Temporary pedestrian diversions are well maintained and sign-posted, have clear sightlines, adequate lighting and appropriately spaced access and egress points.	☐	☐	☐		
Lights are positioned to avoid spill onto neighbouring properties.	☐	☐	☐		
Work vehicles parked in designated areas.	☐	☐	☐		
Social					

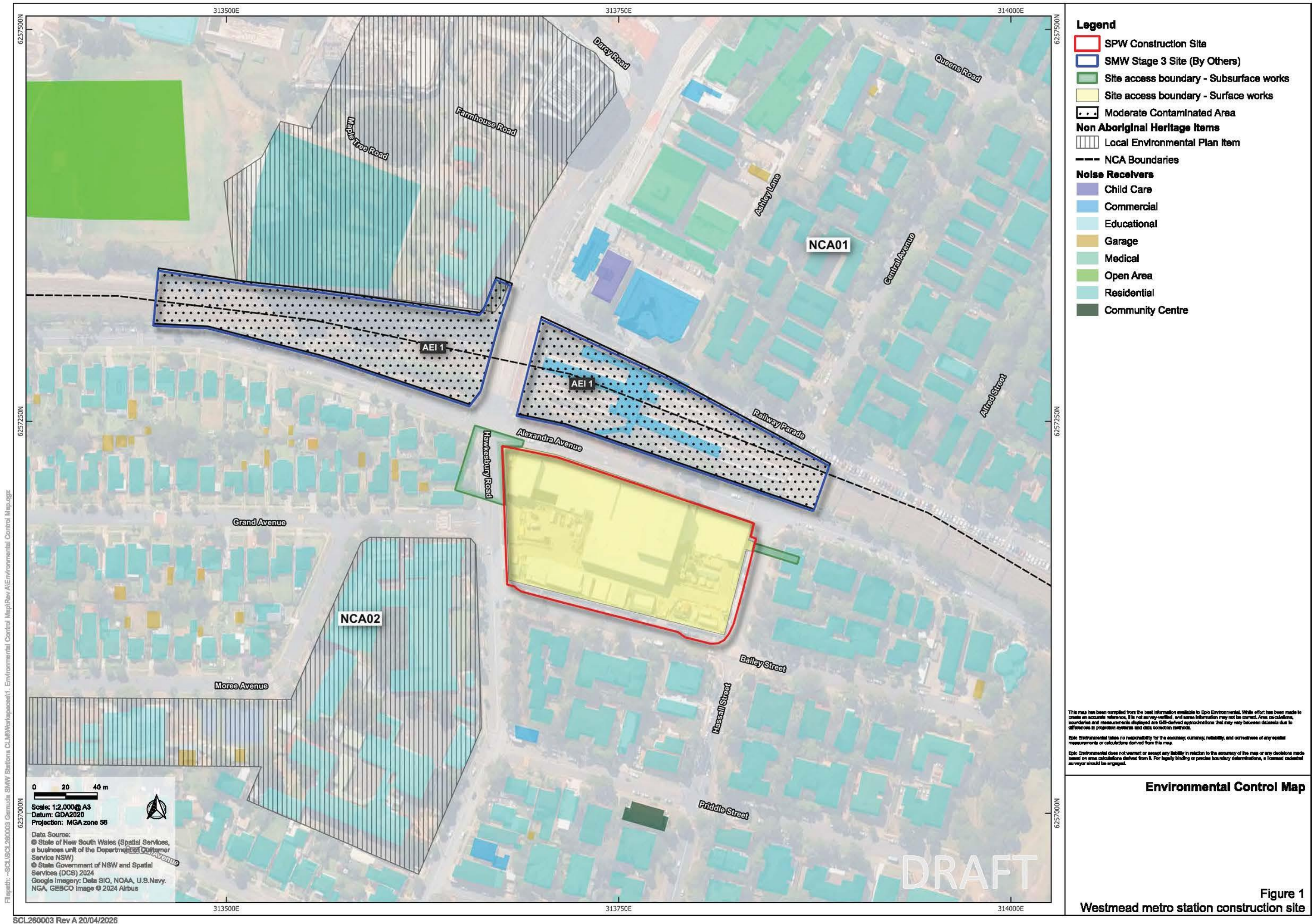
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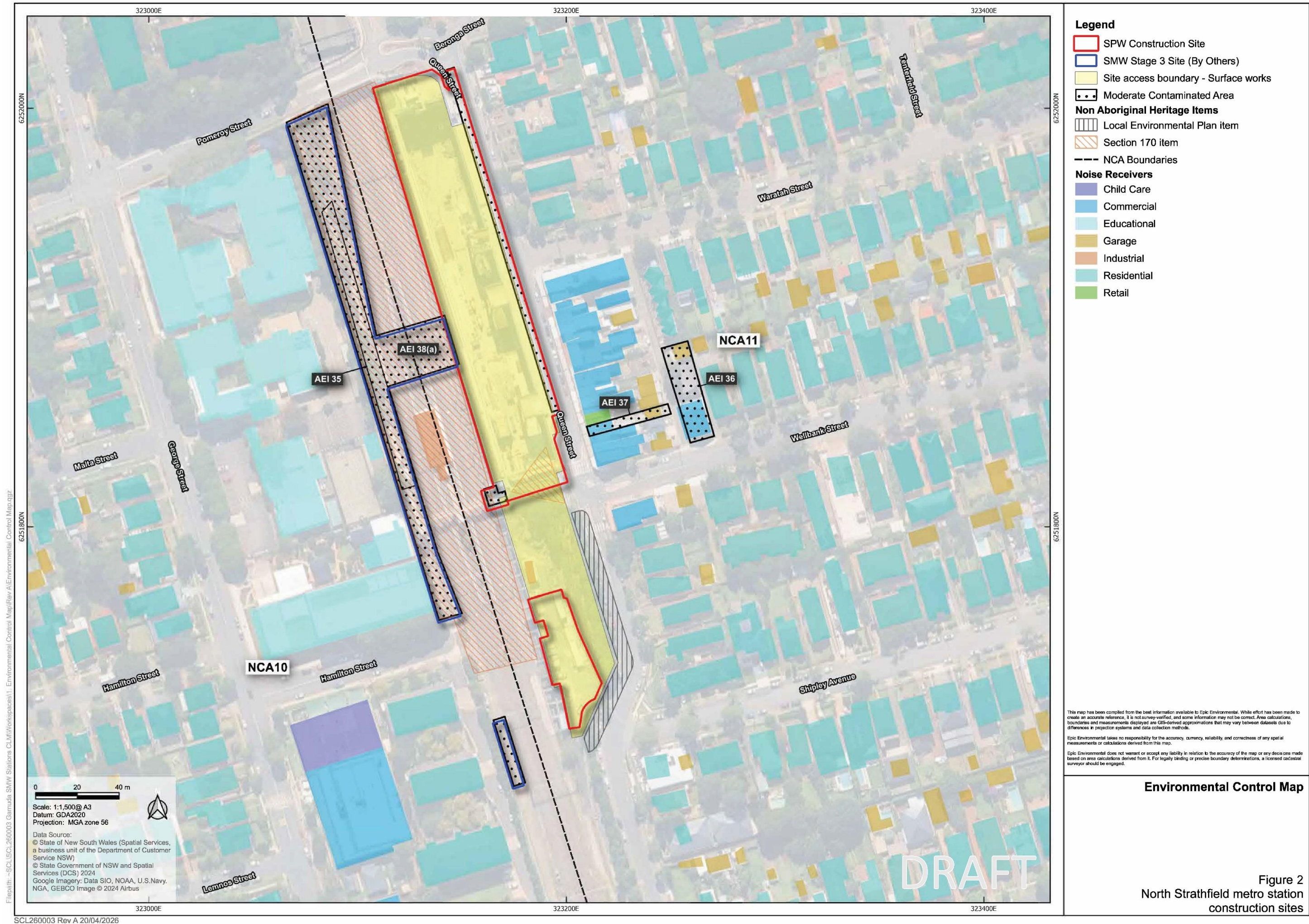
Have any environmental complaints been raised by the community this week?	☐	☐	☐		
Have the complaints been resolved?	☐	☐	☐		
If there has been a change to the site boundary or public access to the site then complete the below sections.					
Resource Use					
Water and electricity meters are installed.	☐	☐	☐		
Site sheds/offices have functioning weather seals, LED lighting, door-closers, push-button taps, and min. 5-star Energy Rating Labelled plug-in electrical equipment.	☐	☐	☐		
CPTED (Crime Prevention Through Environmental Design)					
Is a temporary construction diversion or temporary construction lighting required?	☐	☐	☐		
Does the route result in a decrease in natural surveillance (i.e., by nearby residents, businesses, pedestrians, facility users or road users)?	☐	☐	☐		
Does the route result in a decrease in technical surveillance/ (i.e., are there less security cameras or is security camera vision blocked by modifications, fences, buildings, etc.)?	☐	☐	☐		
Is the route clearly delineated or marked to show access points and egress points?	☐	☐	☐		
Is there sufficient line of sight along the route? Provide justification if end-to-end line of sight is not possible.	☐	☐	☐		
Is there sufficient lighting in the area?	☐	☐	☐		
* RISK RANKING:	1 = High Action: Imminent safety / environment risk – issue must be rectified immediately	2 = Medium Action: Safety / environment risk not imminent however issue is to be rectified immediately.	3 = Low Action: Rectify within 24 hours or time frame specified.	4 = Observation Positive Observation / Good Practice	

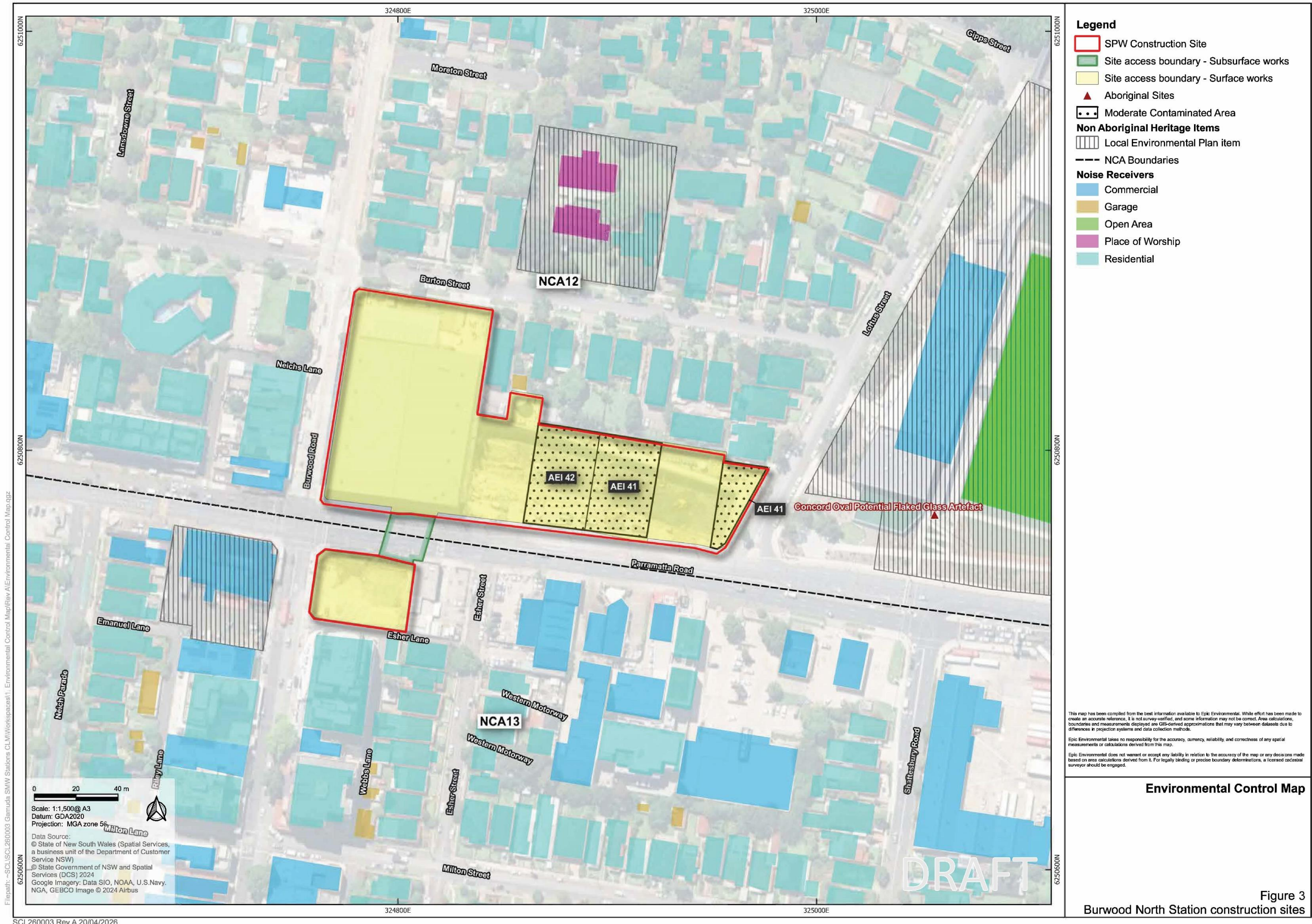
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REVISION NO: 02 PAGE 6 OF 6

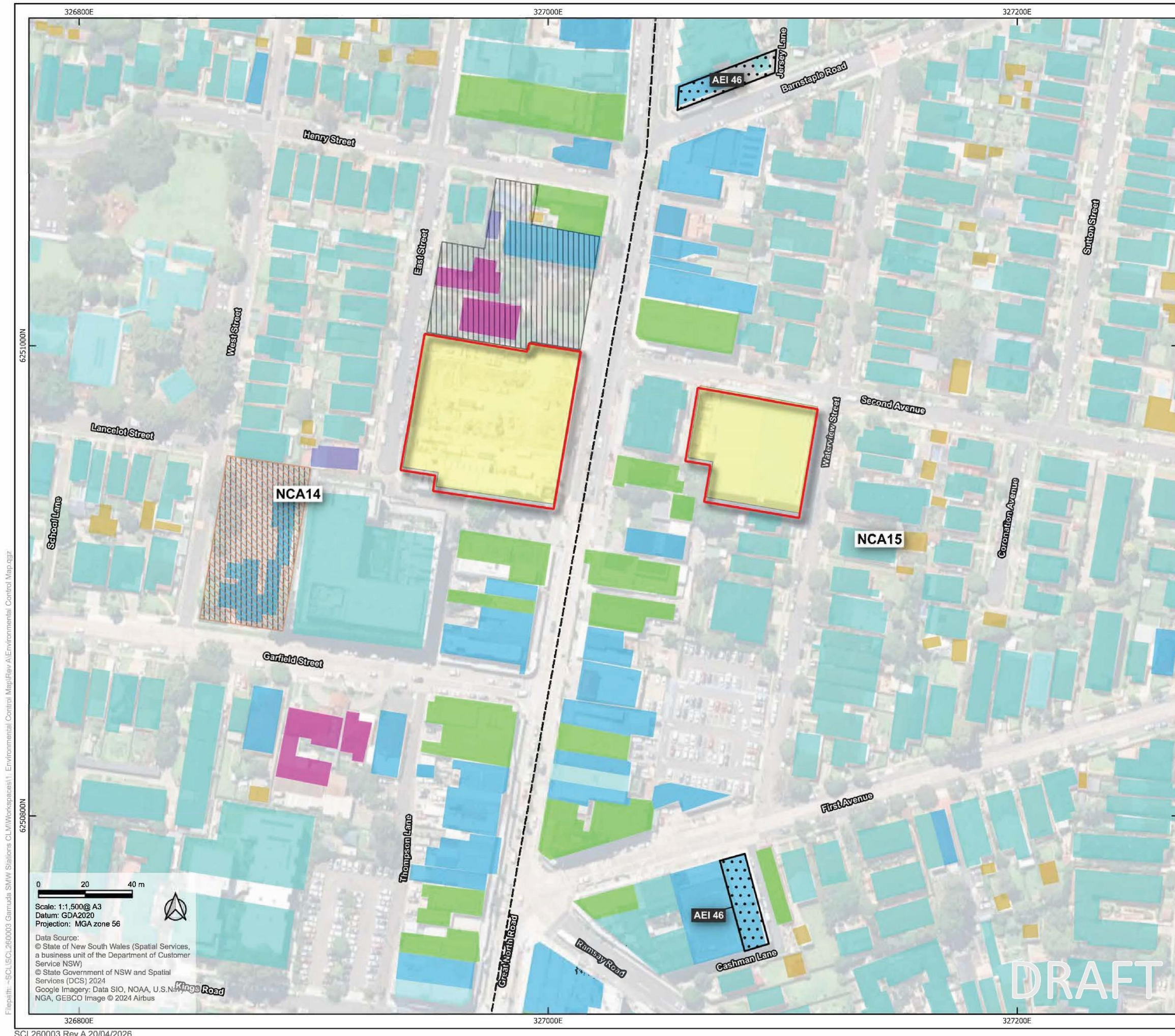
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Appendix H: Primary Environmental Control Maps









- Legend**
- SPW Construction Site
 - Site access boundary - Surface works
 - Moderate Contaminated Area
 - Non Aboriginal Heritage Items**
 - Local Environmental Plan item
 - Section 170 item
 - NCA Boundaries
 - Noise Receivers**
 - Child Care
 - Commercial
 - Educational
 - Garage
 - Place of Worship
 - Residential
 - Retail

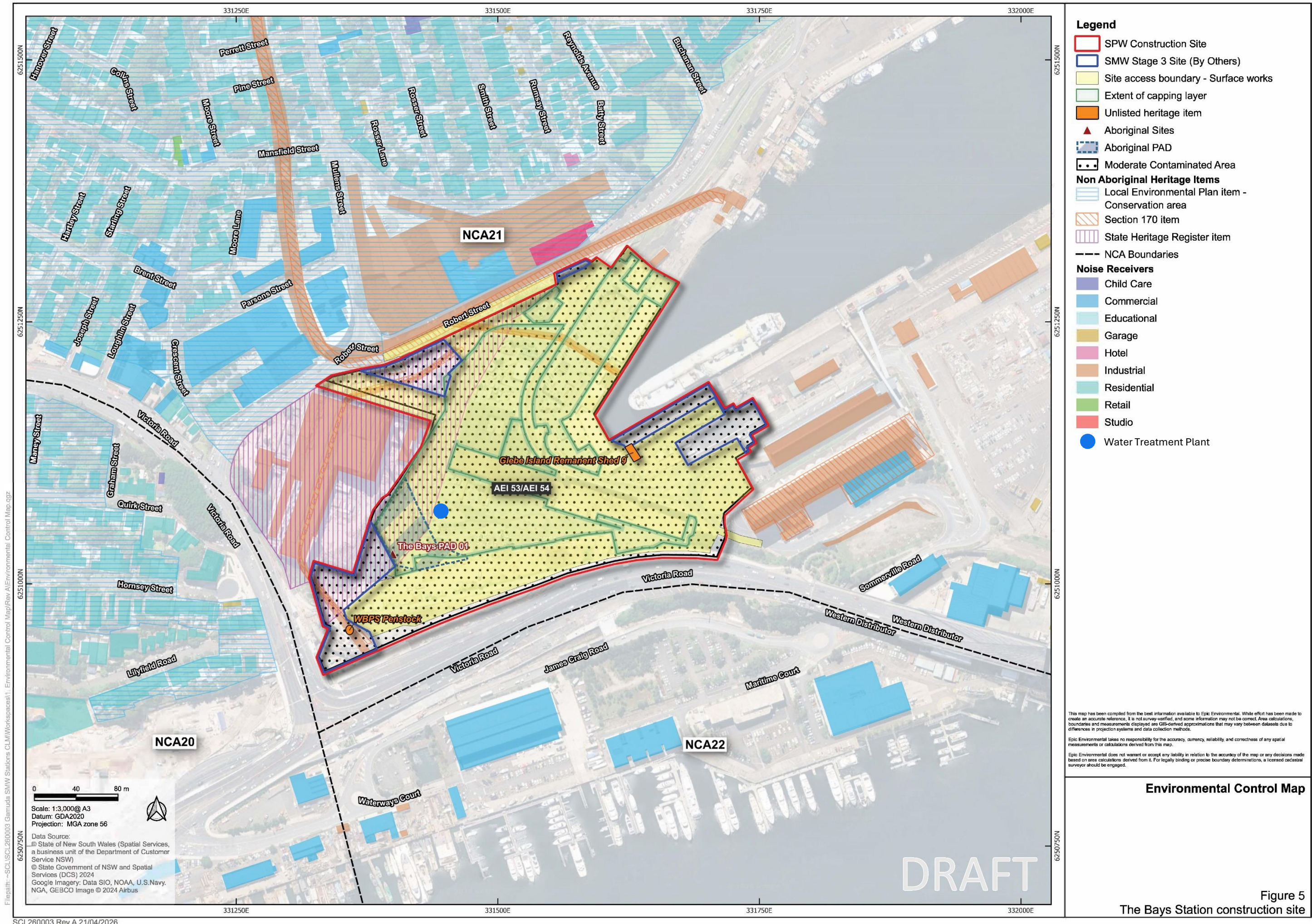
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Environmental Control Map

Figure 4
Five Dock Station construction sites



SPW Environmental Control Measures

Hours of Work: Approved construction hours*: 7AM to 6PM Mondays to Fridays, inclusive 8AMto 6PM Saturdays, and - At no time on Sundays or public holidays. Approved hours for highly noise intensive works* (i.e. rock breaking, saw cutting, impact piling): 8AM to 6PM Monday to Friday 8AM to 1PM Saturday - No more than 3 hours on, followed by 1-hour respite <i>*No work outside of these hours unless approved by an OOHW permit.</i> Minimising noise and vibration impacts: - Work behind existing site hoardings and utilise noise blankets on ATF wherever possible - Minimum sized equipment necessary to complete the works are used. - Select quieter plant/equipment where possible - Power tools and lighting plants should be battery, solar and/or mains powered rather than using diesel-powered generators (where practicable). - Shut down plant, equipment and machinery, including generators, when not in use. - Non-tonal reversing alarms on all mobile plant and vehicles - Avoid swearing or unnecessary shouting or loud stereos/radios on site. - No dropping of materials from height, throwing of metal items, and slamming of doors. - Noise monitoring to be completed during works to confirm noise predictions. - All vehicles must travel in a safe manner and not exceed the 10km/hr speed limit for site the use of engine compression braking would be avoided - Delivery vehicles will be fitted with straps rather than chains for unloading, wherever possible. - All vehicles to be access and egress site via approved routes only. - Vehicles will not idle near to sensitive receivers (e.g., residential receivers). Contamination - Implement specific site management measures from relevant contam. documentation during any ground disturbance in medium risk areas and known residual contamination (i.e. capping layers at TBY and NST) <td> Soil and Water: - Minimise the extent of ground disturbance and exposed soil wherever practical - Implement, inspect and maintain controls as per the site Erosion & Sediment Control Plan (ESCP) - Maintain hardstand areas and haulage routes as clean and remove excess sediment build up ASAP - Monitor rainfall forecast and communicate the risk of potentially flooding rains. - A Dewatering Permit / Permit to Pump must be obtained prior to any water transfer on site - All water collected within the station box MUST be transferred to a Water Treatment Plant or as liquid waste to a licensed waste facility. - Surface water managed passively through ERSED controls around surface drains or to a Water Treatment Plant - Flood protection measures to be maintained on site and regularly inspected pre- and post-rainfall events Fuel/Chemical Storage, Refuelling and Spills: - Fuel and chemicals to be stored in bunded areas (min. 110% capacity of the largest container stored). - Incompatible chemicals will be stored separately in accordance with SDS. - An up-to-date register of hazardous chemicals and dangerous goods will be kept onsite at all times. - Spill kits will be kept onsite, and all staff inducted in their use. Used spill kits must be replaced immediately. Report all spills to supervisor and Environment Team. - Refuelling will be attended at all times and undertaken in designated areas away from waterways, drainage pits and lines. - Vehicles will be properly maintained to minimise the risk of fuel/oil leaks. Spill / Incident Response - All spills or leakages will be immediately contained, reported to the Site Supervisor / Environment Team and cleaned up. - In the event of an environmental incident, the Stations Manager and/or E&S Manager (or delegate) must be notified immediately. - In the event an actual or potential incident is reported through the Community Complaints line, the E&S Manager (or delegate) will be contacted immediately to respond and investigate. Visual Amenity - Maintain good housekeeping on site and around the site perimeters (e.g. remove litter, graffiti) - Light spill will be avoided in accordance with AS/NZS 4282:2019 - Visible temporary works and construction elements must consider CPTED principles and feasible and reasonable measures to minimise visual amenity impacts </td> <td> Heritage & No-Go Zones: - No works permitted within no-go zones (as specified on subsequent ECMs). Delineation to be regularly inspected and maintained. - Ground disturbance works at TBY to be managed in accordance with the Stage 1 and 2 ARDEMs - Archaeological potential in all other areas across the sites is low and managed as per Unexpected Finds Procedure. - No vibratory works within the minimum working distances for heritage buildings unless approved and monitoring completed by Environment Team: - Handheld Jackhammer: 3m - Large hydraulic hammer: 44m 7-13T Vibratory roller: 31m Flora and Fauna: - Vegetation clearing or trimming to be undertaken in accordance with the Clearing procedures in the CEMP (including Ecologist supervisor for native vegetation) - Any damage to no-go zone fencing or signage would be reported to the Site Supervisor or Environment Team immediately. - Hygiene controls for all vehicles and people working in the area are required including coming to site clean and free of soil/plant material prior to entering the site. 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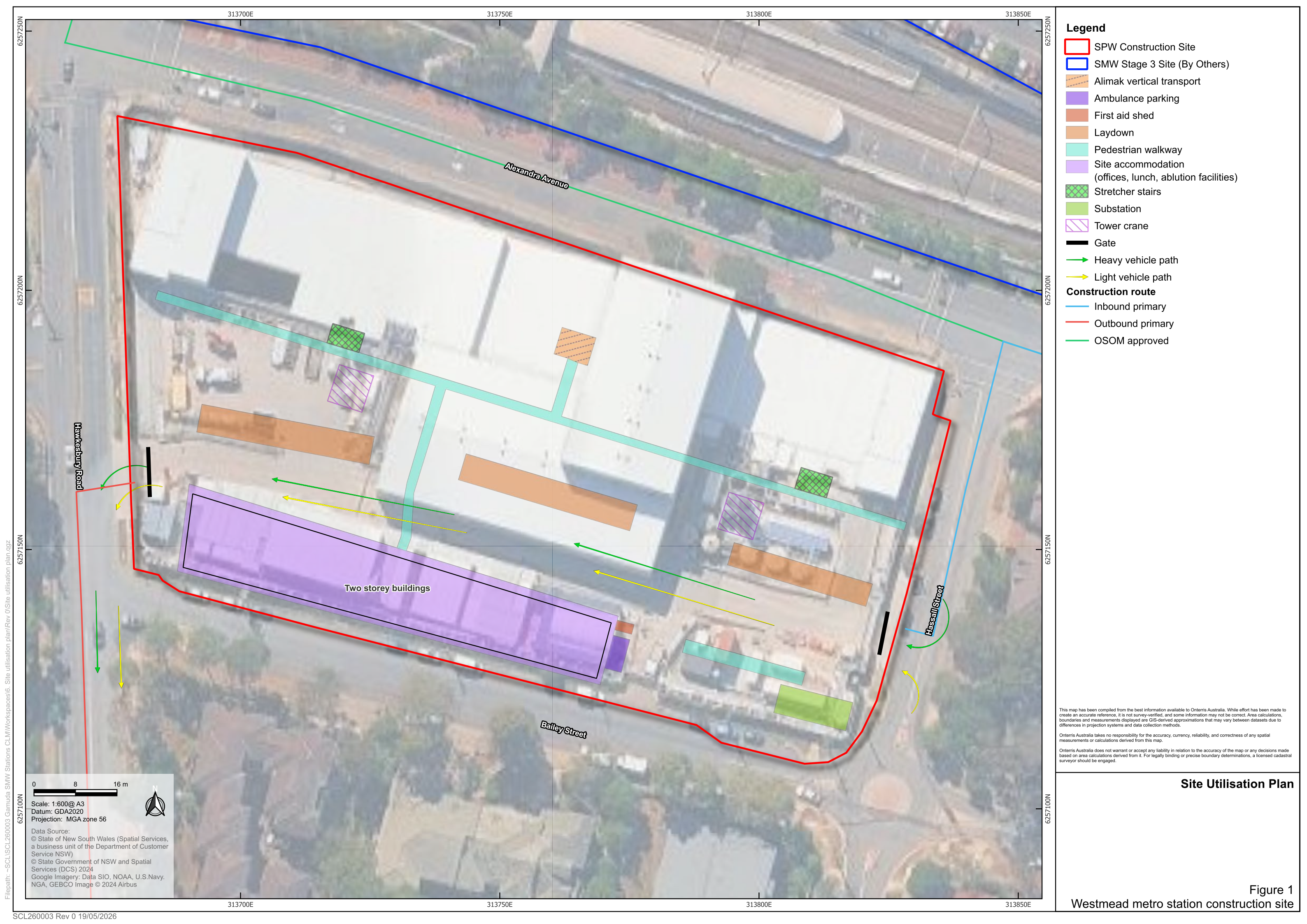
Project / Site	SPW / WSD, NST, BWD, FDK, TBY
Date	28/04/2026
Revision No.	A
Prepared By	A. Burke
Sheet	Sheet 6 of 6



Initial Environmental Control Maps
(CEMP Appendix H)

NOT TO SCALE

Appendix I: Indicative Construction Site Layouts



Legend

- SPW Construction Site
- SMW Stage 3 Site (By Others)
- Alimak vertical transport
- Ambulance parking
- First aid shed
- Laydown
- Pedestrian walkway
- Site accommodation (offices, lunch, ablution facilities)
- Stretcher stairs
- Substation
- Tower crane
- Gate
- Heavy vehicle path
- Light vehicle path
- Construction route**
 - Inbound primary
 - Outbound primary
 - OSOM approved

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Site Utilisation Plan

Figure 1
Westmead metro station construction site



- Legend**
- SPW Construction Site
 - SMW Stage 3 Site (By Others)
 - Alimak vertical transport
 - Concrete trailer pump & tower boom
 - Existing Sydney Trains assets
 - Local heritage items
 - Mobile crane zone
 - Pedestrian walkway (covered)
 - Shared walkway
 - Site compound
 - Stretcher stairs
 - Tower crane
 - Turnstile access
 - ATF fencing
 - Gate
 - Heavy vehicle path
 - Hoarding
 - Construction route**
 - Inbound primary
 - Outbound primary

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Site Utilisation Plan

Figure 2
North Strathfield metro
station construction sites



- Legend**
- SPW Construction Site
 - Alimak vertical transport
 - Ambulance parking
 - First aid shed
 - Heavy vehicle path
 - Laydown
 - Linewide asset
 - Linewide site demarcation
 - Pedestrian walkway
 - Security / TC shed
 - Site accommodation (offices, lunch, ablution facilities)
 - Stretcher stairs
 - Substation
 - Tower crane
 - Turntable
 - Gate
 - Heavy vehicle path
 - Light vehicle path
- Construction route**
- Inbound primary
 - Outbound primary
 - Outbound secondary
 - OSOM restricted
 - OSOM approved

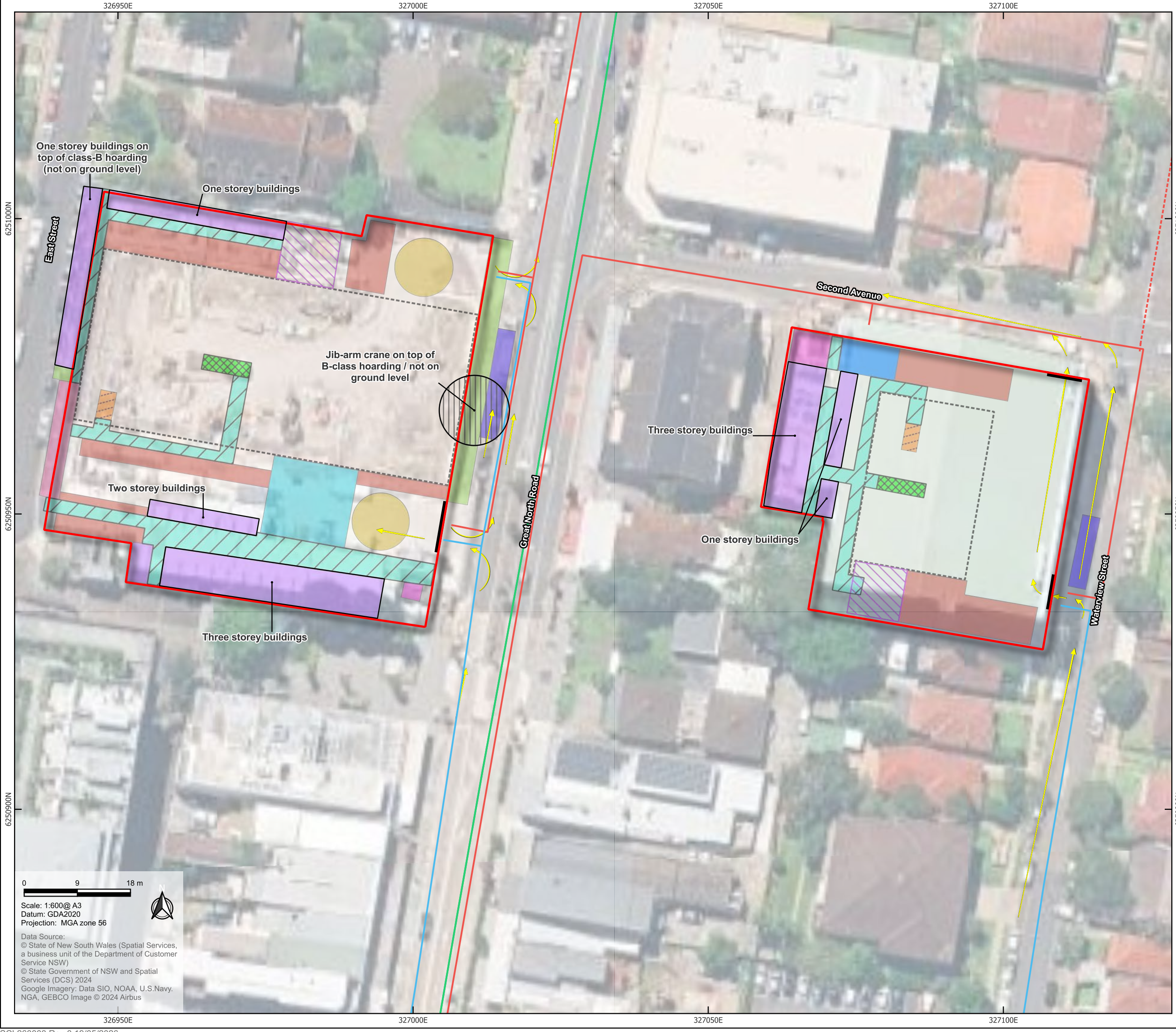
This map has been compiled from the best information available to Onterris Australia. While effort has been made to create an accurate reference, it is not survey-verified, and some information may not be correct. Area calculations, boundaries and measurements displayed are GIS-derived approximations that may vary between datasets due to differences in projection systems and data collection methods.

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Site Utilisation Plan

Figure 3
Burwood North Station
construction sites



- Legend**
- SPW Construction Site
 - 5T Jib-arm crane
 - Alimak vertical transport
 - B-class hoarding (w/ covered walkway)
 - B-class hoarding (w/ laydown on top / not on ground level)
 - Construction loading zone per CTMP
 - Materials laydown and storage
 - Mobile crane zone
 - Pedestrian walkway (covered)
 - Site accommodation (offices, lunch, ablution facilities)
 - Station shaft
 - Stretcher stairs
 - Temporary substation kiosk
 - Tower crane
 - Turntable
 - Water treatment plant
 - Gate
 - Light vehicle path
- Construction route**
- Inbound primary
 - Outbound primary
 - Outbound secondary
 - OSOM approved

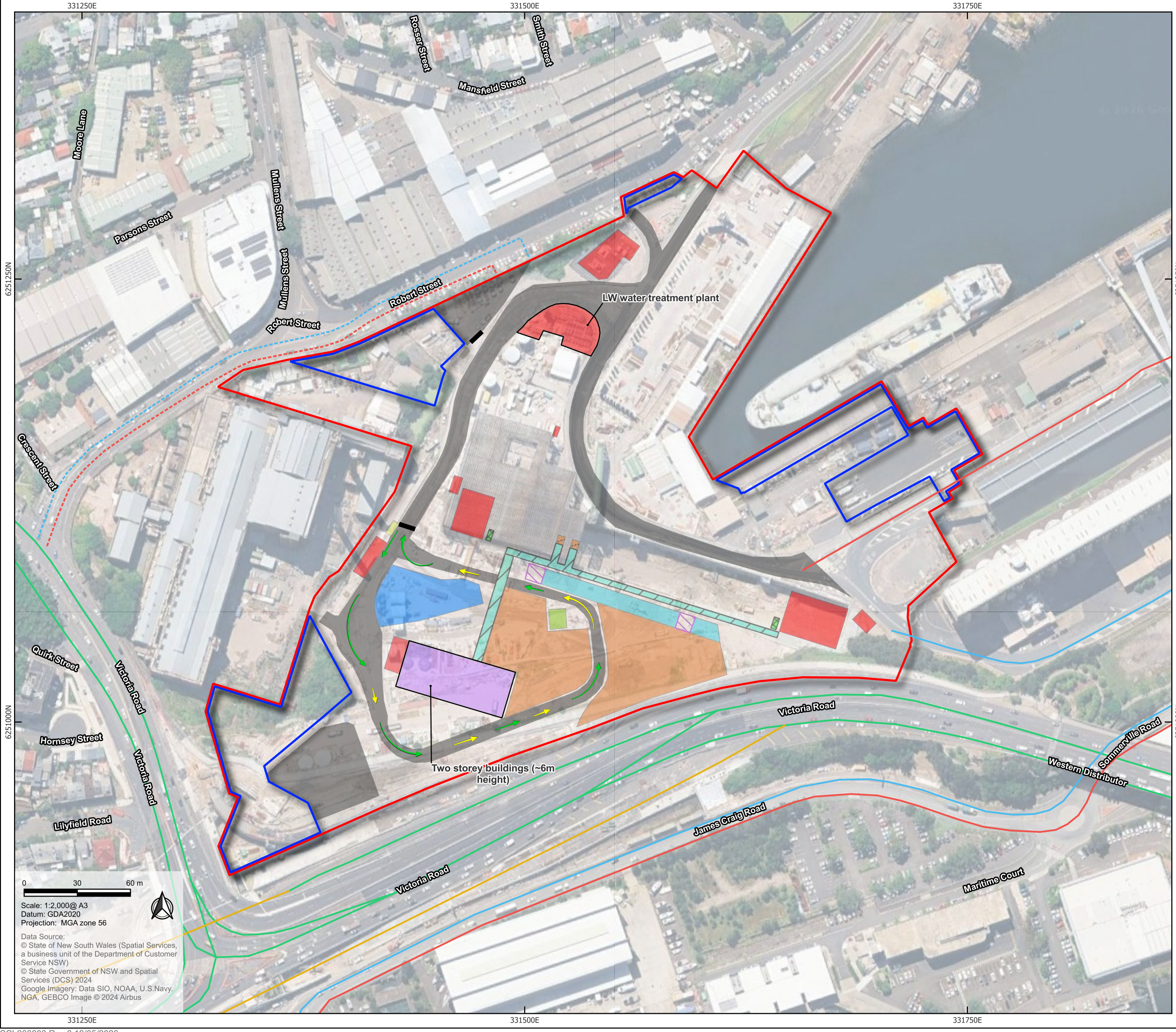
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Site Utilisation Plan

Figure 4
Five Dock Station construction sites



- Legend**
- SPW Construction Site
 - SMW Stage 3 Site (By Others)
 - Access road
 - Alimak vertical transport
 - Ambulance parking
 - Carpark
 - First aid shed
 - Laydown
 - Linewide asset
 - Mobile crane zone
 - Pedestrian walkway (covered)
 - Security / TC shed
 - Site accommodation (offices, lunch, ablution facilities)
 - SPW carpark
 - Stretcher stairs
 - Substation
 - Temp services area (enabling work)
 - Tower crane
 - Water treatment plant
 - Gate
 - Heavy vehicle path
 - Light vehicle path
 - Construction route**
 - Inbound primary
 - Inbound secondary
 - Outbound primary
 - Outbound secondary
 - OSOM restricted
 - OSOM approved

This map has been compiled from the best information available to Onteris Australia. While effort has been made to create an accurate reference, it is not survey-verified, and some information may not be correct. Area calculations, boundaries and measurements displayed are GIS-derived approximations that may vary between datasets due to differences in projection systems and data collection methods.

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Site Utilisation Plan

Figure 5
The Bays Station construction site

Appendix J: Air Quality Management Procedure

PROCEDURE

Air Quality Management Procedure
Sydney Metro West – Stations Package West

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TERMS AND DEFINITIONS

Term	Definition
AA	Acoustic Advisor
AMP	Activity Management Plan(s)
AQMP (this Procedure)	(Construction) Air Quality Management Procedure
BOCC	Backup Operations Control Centre
CCMS	Community Complaints Management System
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CoA	Condition(s) of Approval
DECC	Department of Environment and Climate Change (NSW)
DEC	Department of Environment and Conservation (NSW)
EIS	Environmental Impact Statement
ECM	Environmental Control Map(s)
EMS	Environmental Management System
EPA	Environment Protection Authority (NSW)
ER	Environmental Representative
ETP	Eastern Tunnelling Package
GREP	NSW Government Resource Efficiency Policy
HVAC	Heating, Ventilation and Air Conditioning
IAQM	Institute of Air Quality Management
IMS	Integrated Management System
NO _x	Oxides of nitrogen
OSD	Over Station Development
PM _{2.5}	Particulate matter with aerodynamic diameter ≤ 2.5 micrometres
PM ₁₀	Particulate matter with aerodynamic diameter ≤ 10 micrometres
PS	(Sydney Metro) Particular Specification
REMMs	Revised Environmental Mitigation Measures
RtS	Response to Submissions (Report)
SEARs	Secretary's Environmental Assessment Requirements
SMART	Specific, Measurable, Achievable, Realistic, Timely
SPW	Stations Package West
TBM	Tunnel Boring Machine
TARP	Trigger Action Response Plan
TMP	Traffic Management Plan(s)
TSP	Total Suspended Particulate matter
VOC	Volatile Organic Compound(s)
WHS	Work Health and Safety
WTP	Western Tunnelling Package

1 INTRODUCTION

1.1 Purpose

The purpose of this Construction Air Quality Management Procedure (AQMP or Procedure) is to describe the air quality management measures that will be implemented during construction of the Sydney Metro Stations Package West (SPW) Project.

1.2 Relationship with other Project Documents

This Procedure forms part of the Construction Environmental Management Plan (SMWSTSPW-GEA-SWD-EN-PLN-000001) (CEMP) for the SPW Project.

This AQMP should also be read in conjunction with the Sustainability Management Plan (SMWSTSPW-GEA-SWD-EN-PLN-000012), which establishes the non-road diesel emission standards which directly supports the Air Quality objective to minimise gaseous emissions as required by CEMF 12.1).

The Soil and Water Management Plan (SMWSTSPW-GEA-SWD-EN-PLN-000008) also includes controls to minimise tracking onto local roads which also supports the air quality management measures related to dust generation from Project vehicle movements.

1.3 Air Quality Objectives

The objectives of this AQMP are to:

- Minimise gaseous and particulate pollutant emissions from construction activities as far as feasible and reasonable.
- Identify and control potential dust and air pollutant sources associated with station fit-out, surface works, and ancillary facility operations to prevent impacts on sensitive receivers.
- Prevent nuisance impacts on the local community and environment, specifically regarding visible dust and odour beyond the site boundary.
- Ensure compliance with all relevant legislative requirements, the Conditions of Approval (CoA), the Revised Environmental Mitigation Measures (REMMs), and the Sydney Metro CEMF applicable to SPW works.

1.4 Roles and Responsibilities

The roles and responsibilities of key Project personnel with respect to the management of air quality are defined in Table 1-1 and should be read in conjunction the overarching governance structure established in Section 4 of the CEMP.

Table 1-1: Air Quality Management Responsibilities

Role	Responsibility
Environment Operations and Approval Lead	• Maintain currency of this AQMP and manage updates where required. • Provide oversight of compliance with Planning Approval, CEMF and project requirements. • Support environmental risk assessment and verification processes. • Interface with Sydney Metro and the Environmental Representative (ER) where required.
Station Manager	• Ensure implementation of air quality mitigation measures at each station site. • Confirm AMPs and ECMs incorporate required air quality controls. • Allocate resources to support inspections, monitoring and corrective actions.

Role	Responsibility
Senior Environment Advisor / Environment Advisor	- Undertake inspections, monitoring and verification activities. - Maintain environmental records and reporting inputs. - Deliver toolbox talks and site awareness relating to air quality management. - Provide technical advice to construction teams.
Site Engineers / Superintendents	- Implement air quality controls within daily construction activities. - Ensure plant, equipment and work practices minimise emissions and dust generation. - Escalate issues and implement corrective actions where controls fail.
Integration and Interface Manager	- Coordinate interface risks relating to shared haul routes, cumulative impacts and adjacent works. - Support integration of air quality controls into staging and logistics planning.

1.5 Project Requirements

This section identifies the statutory, approval and Project-specific requirements that apply to the management of construction air quality impacts for the SPW works. These requirements establish the mandatory framework within which construction air quality impacts must be assessed, managed and monitored during delivery of the Project.

1.5.1 Relevant Legislation, Specifications, Guidelines and Standards

Air quality associated with the SPW works must be managed in accordance with the legislation, standards, specifications and guidelines listed in Table 1-2, as applicable. These instruments establish the statutory and technical framework for the assessment and management of construction air quality impacts for the Project.

Where inconsistencies exist, statutory requirements and Planning Approval Conditions of Approval take precedence, followed by applicable contractual requirements and guidance documents.

Table 1-2: Relevant Legislation, Specifications, Guidelines and Standards

Category	Instrument
Legislation	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
	<i>Protection of the Environment Operations Act 1997 (NSW)</i>
	<i>Protection of the Environment Operations (Clean Air) Regulation 2022 (NSW)</i>
	<i>Contaminated Land Management Act 1997 (NSW) (Relevant to odour management)</i>
	<i>Work Health and Safety Act 2011 (NSW)</i>
	<i>National Greenhouse and Energy Reporting Act 2007 (Cth)</i>
Sydney Metro Requirements	Sydney Metro Construction Environmental Management Framework (CEMF)
	Sydney Metro Environment and Sustainability Policy
	Sydney Metro Environmental Incident and Non-Compliance Reporting Procedure
Government Guidelines and Policies	Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA, 2016/2022)
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC, 2007/2022)
	Technical Framework - Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006)
	Guidance on the assessment and monitoring of dust from demolition and construction (Institute of Air Quality Management, Version 1.1, 2018)
	Managing Urban Stormwater: Soils and Construction, Volume 1 (Landcom, 2004) and Volume 2 (DECC, 2008) (The "Blue Book")

Category	Instrument
Australian and International Standards	National Environment Protection (Ambient Air Quality) Measure 2021 (Cth)
	National Environment Protection (Diesel Vehicle Emissions) Measure 2001 (Cth)
	NSW Government Resource Efficiency Policy (GREP)
	AS/NZS ISO 14001:2016 Environmental management systems – Requirements with guidance for use
	AS/NZS 3580.1.1:2016 – Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment
	AS/NZS 3580.10.1:2016 – Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method
	AS/NZS 3580.9.3:2015 – Determination of suspended particulate matter – Total suspended particulate matter (TSP) – High volume sampler gravimetric method
	AS/NZS 3580.9.6:2015 – Determination of suspended particulate matter – PM10 high volume sampler with size selective inlet – Gravimetric method

1.5.2 CoA and REMMs

This AQMP has been prepared to satisfy CoA C1 and the Phasing Report that require the preparation and implementation of a Construction Air Quality Management Procedure for the SPW works. No air quality specific REMMs requiring additional project-specific air quality management procedures were identified in the EIS and RtS Report.

A consolidated register of all CoA and CEMF requirements relevant to construction air quality management, including how each requirement is addressed by this AQMP or associated documents, is provided in Appendix A.

2 AIR QUALITY RISK CONTEXT

This section summarises the air quality risk context for construction of the SPW works at each station site. It is based on a sequenced evidence framework comprising:

- Assessments undertaken in the EIS (Chapters 7, 10-13 and 18) and RtS Report (Section 6 and 7),
- Construction monitoring and compliance data from Stage 1 and 2 projects, and
- Confirmation of the status of inherited site conditions during SPW site possession and handover.

The existing air quality environment referenced in this section reflects an inherited, post-excavation condition. Air quality behaviour at the Project sites have been subject to multi-year major civil excavation, tunnelling, and monitoring by previous contractors and are heavily influenced by road traffic emissions. Accordingly, this section is intentionally focused on summarising the residual risks requiring management during station fit out and surface precinct works.

2.1 Key Risk Activities to Air Quality

The Project EIS identified that most high-risk dust generating activities (i.e. bulk excavation) have been completed at each SPW construction site by the previous Western, Central and Eastern Tunnelling Packages (WTP, CTP and ETP). Each SPW site is located within highly urbanised environments and primarily involve the construction of geographically discrete station sites within completed or substantially completed station boxes and associated surface and structural works, rather than bulk excavation or tunnelling.

The key SPW activities with the potential to interact with air quality include:

- Construction of station buildings involving concrete placement, formwork, and material handling directly adjacent to residential and other sensitive receivers
- Installation of architectural finishes, mechanical and electrical systems, and station services. These activities involve cutting, grinding, and drilling of masonry and concrete, creating a risk of generated silica dust and particulate matter within the station box and services building.
- Construction of station plazas, precincts, including associated public domain works and transport interchanges on surrounding footpaths and local roads. This involves minor earthworks, culverts and drainage, pavement replacement and landscaping. These works will be undertaken in close proximity to commercial and residential frontages, as well as community spaces at some locations including North Strathfield, Five Dock,
- Loading and unloading of fit-out materials, waste removal, and crane operations. While bulk earthworks are complete, the movement of delivery vehicles on surrounding local roads poses a risk of wheel-generated dust (track-out) onto public roads.
- Operation of static plant (cranes, generators) and mobile plant (forklifts, delivery trucks) within the site, contributing to local exhaust emissions (NOx, PM2.5). This also includes a central Water Treatment Plant (WaTP) at The Bays, which treats groundwater transferred from other SPW stations.
- Underground fit out of the excavated-under road pedestrian adit connecting the two sites at Burwood North beneath Parramatta Road.
- Concurrent and interfacing surface activities with the Linewide Contractor at Burwood North and The Bays, including shared access points. *Note: At the other SPW sites, interface with Linewide is expected to be minimal and limited to access and egress from the tunnel into the station boxes such as during emergency events.*

2.2 High Sensitivity Receivers

Key receivers with high sensitivity to air quality and dust nuisance for each SPW site that were identified in the EIS are provided in Table 2-1.

Table 2-1: Key Receivers with High Air Quality Sensitivity

SPW Site	Sensitive Receiver
Westmead	• Western Sydney University (Westmead Precinct) located immediately north and east of the site; Westmead Public School (approximately 100m south on Hawkesbury Road); and Parramatta Marist High School (~400m north-east). • The Westmead Health and Education Precinct (including Westmead Hospital) is located to the north. While the main hospital buildings are set back, the precinct requires high standards of ambient air quality. • High-density residential receivers located on Bailey Street, Hassall Street, and Alexandra Avenue immediately adjacent to the construction boundary. • Mounika's Family Day Care and other childcare facilities located to the north of the existing station.
North Strathfield	• The McDonald College located approximately 20m west of the construction boundary. • Our Lady of the Assumption Catholic Primary School located approximately 80m west of the site. • Low-to-medium density residential receivers located along Queen Street and Waratah Street immediately adjacent to the eastern construction boundary. • The North Strathfield local centre comprising retail and business shopfronts along Queen Street, immediately adjacent to the station entry and public domain works areas.
Burwood North	• St Luke's Anglican Church, located immediately north of the Northern construction site on Burton Street. • Concord Oval located immediately east of the Northern site. • High-density residential receivers along Burwood Road, Burton Street, and Loftus Street immediately adjacent to the site boundaries. • The Bath Arms Hotel and retail strips along Parramatta Road and Burwood Road which have active street frontages.

SPW Site	Sensitive Receiver
Five Dock	- St Alban's Anglican Church located immediately north of the western site boundary; and Fred Kelly Place (public plaza and library) located immediately south of the western site, which serves as a focal point for community gathering and outdoor dining. - High-density residential receivers overlooking the sites, specifically the mixed-use apartment building at 110 Great North Road (adjacent to the eastern site) and residential properties along East Street and Waterview Street. - Sunshine Early Learning Centre located directly opposite the western site (approximately 20m from the boundary) and Five Dock Public School (approximately 120m west of the site). - Active retail and dining frontages along Great North Road, which are highly sensitive to amenity impacts (visible dust) affecting outdoor seating areas.
The Bays	- The White Bay Power Station (State Heritage Register Item 01015) located immediately west of the site. This receiver is highly sensitive to dust deposition (soiling) on heritage fabric, particularly the brick facades and chimney structures. - The White Bay Cruise Terminal and Port Authority of NSW operations located to the east and north. These receivers require the maintenance of ambient air quality to support tourism and working harbour operations. - Residential receivers located in Rozelle (Mansfield Street approx. 80m north) and Balmain (approx. 140m west). While partially shielded by topography and existing industrial structures, these elevated receivers overlook the site. - White Bay (Sydney Harbour) located immediately adjacent to the eastern boundary. This receptor is sensitive to dust deposition affecting water quality.

2.3 Air Quality Risk Summary

Following the completion of bulk excavation by previous WTP, CTP and WTP contractors, local amenity impacts, including air quality, are anticipated to reduce during the SPW phase compared to the preceding major civil construction work.

However, while the intensity of dust generation is lower, the open nature of the SPW sites and in some instances proximity of works to highly sensitive receivers require strict management to prevent external nuisance. This is particularly critical during station plaza, precinct and public domain works given they will occur at surface level and in immediate proximity to receptors at some sites. Unlike the previous deep excavation works which were shielded by the station boxes, shafts and caverns, these surface activities are exposed, and fugitive dust presents a compliance and complaint risk.

Table 2-2 consolidates the residual, delivery-phase air quality risks identified for the SPW works across all station sites, based on the detailed station-specific air quality contexts presented in Sections 2.1 and Section 2.2. It reflects the inherited site conditions following completion of bulk excavation and tunnelling by the preceding packages and focuses on the nature and magnitude of air quality interactions relevant to SPW construction activities.

Table 2-2: Air Quality Risk Summary

Station	Risk	Rating	Site Specific Mitigation Measures
Westmead	Nuisance dust ingress impacting sterile HVAC intakes at Westmead Health Precinct and University research facilities.	Low	Standard mitigation measures in Table 3-2 apply, with heightened focus on sensitive receivers.
North Strathfield	Amenity dust nuisance impacting The McDonald College (boarding facilities) and Queen Street retail frontages.	Low	
Burwood North	Cumulative track-out risk onto Parramatta Road from shared site operations causing rapid re-suspension by traffic.	Low	

Station	Risk	Rating	Site Specific Mitigation Measures
Five Dock	Visual dust nuisance affecting outdoor dining amenity at Fred Kelly Place and residential receivers overlooking the cavern.	Low	
The Bays	Wind erosion from open harbour frontage and dust deposition (soiling) on White Bay Power Station heritage fabric. Cumulative track-out risk onto Ports Authority access road from shared site operations causing rapid re-suspension by traffic.	Low	

3 ENVIRONMENTAL MITIGATION MEASURES

This section sets out the construction air quality mitigation measures to be implemented for the SPW works. Measures are presented in a structured register format to support construction planning, consistent implementation across sites, and auditable demonstration of compliance with the Planning Approval and Sydney Metro requirements (including the CEMF).

Based on the air quality risk context (Section 2.3), standard measures (Section 3.2) have been developed to managed potential air quality impacts across all SPW works and station sites unless otherwise stated.

3.1 Control Hierarchy and SMART Application

Construction air quality management for the SPW works is implemented through a structured hierarchy of controls consistent with the principles of avoidance, minimisation, management and verification, and aligned with the SMART framework (Specific, Measurable, Achievable, Realistic and Timely).

Table 3-1 illustrates the control hierarchy applied under this Procedure and how SMART requirements are embedded into the selection, implementation and verification of mitigation measures.

Table 3-1: Control Hierarchy and SMART Application

SMART	Control Type	Example
S – Specific, what must be done M – Measurable, how it will be checked A – Achievable, can be implemented in construction R – Realistic, practical for site conditions T – Timely, applied when required	Avoid / Eliminate	Plan works to avoid unnecessary dust-generating activities where practicable (e.g. avoid double handling of materials, minimise stockpile creation, select low-dust methodologies during design and planning).
	Substitute / Minimise at Source	Use low-VOC materials, vacuum-attached cutting tools or wet suppression methods, and maintain plant to minimise emissions; verified through visual inspections, pre-start checks and monitoring records.
	Engineering	Install physical dust controls such as wheel wash/rumble grids, water carts/misting systems, stabilised site access points and dust extraction systems to reduce emissions at source.
	Administrative	Implement procedures such as designated haul routes, speed limits, anti-idling requirements, pre-start briefings, training and Activity Management Plans (AMPs) to manage dust risk in day-to-day operations.

3.2 Standard Air Quality Mitigation Measures

Standard mitigation measures applicable across the SPW works are provided in Table 3-2. These measures apply to all station sites and works activities unless explicitly identified as station-specific in subsequent subsections.

Table 3-2: Standard Air Quality Mitigation Measures

ID	Measure	Control Type	Timing / Frequency	Responsibility	Source / Reference	Relevant Management Document / Process
AQ-01	Exposed surfaces and disturbed areas (including unsealed haul roads and active work zones) will be regularly wet-down to minimise dust generation, particularly during dry or windy conditions.	Engineering Control	Daily / As required	Site Supervisor	CoA E1, CEMF-AQ1	AMP / Daily Pre-start
AQ-02	High-efficiency dust extraction systems (e.g., vacuum-attached tools) or wet-cutting techniques must be used for all cutting, grinding, sawing, or drilling of concrete and masonry during station fit-out to prevent silica dust generation.	Engineering Control	Continuous during activity	Site Supervisor	CEMF-AQ1	AMP
AQ-03	Minimise the number and volume of stockpiles on site. Position stockpiles away from sensitive receivers and drainage lines where practicable. Cover or stabilise stockpiles that will remain inactive for more than 5 days. Cover or seal exposed areas prior to periods of no work (e.g. long weekends, holiday periods) and progressively rehabilitate exposed areas on completion of work stages, including temporary cover and early landscaping where practicable	Substitution / Engineering	Continuous	Site Supervisor	CEMF-AQ1	ECM / ESCP
AQ-04	All vehicles carrying loose materials (spoil, demolition waste) must be covered prior to exiting the site.	Engineering	Prior to exit	Site Supervisor	CEMF-AQ1	Heavy Vehicle Driver Induction / Site access/egress checklist
AQ-05	Stabilised access/egress points and/or gate control (such as rumble grids or wheel washes) will be maintained to prevent mud tracking onto public roads.	Engineering	Construction	Site Supervisor	CEMF-AQ1	ECM / ESCP
AQ-06	Hardstand and/or sealed surfaces and access roads will be maintained for as long as practicable and kept free of sediment and debris (i.e. using a street sweeper or equivalent)	Engineering	Construction	Site Supervisor	CEMF-AQ1	ECM / ESCP Environmental Site Inspections

ID	Measure	Control Type	Timing / Frequency	Responsibility	Source / Reference	Relevant Management Document / Process
AQ-07	All plant and equipment must be maintained in accordance with manufacturer specifications to minimise exhaust emissions. Visual inspections will be conducted at pre-start to ensure no visible smoke emissions during operation.	Engineering Control	Pre-start / Continuous	Plant Operator	CEMF-AQ2	Plant Pre-Start Checklist
AQ-08	Plant and equipment engines must be switched off when not in use. Unnecessary idling is prohibited.	Administrative	Continuous	All Personnel	CEMF-AQ2	Site Induction / Toolbox Talk
AQ-09	Dust-generating activities must be modified or ceased where observed dust generation cannot be adequately controlled or suppressed, having regard to weather conditions and forecasts. Per the emergency response procedure in CEMP Appendix F, sites will be checked for fugitive dust emissions when wind speeds reach >16m/s.	Administrative	Daily	Site Supervisor	CEMF-AQ1	Daily Pre-start Briefing / Weather App
AQ-10	Regular inspections and visual monitoring will be undertaken during dust-generating activities to verify that no visible dust is migrating beyond the site boundary.	Administrative	Daily	Site Supervisor / Environment Advisor	CEMF-AQ1	Daily Inspection Checklist
AQ-11	Potential odour sources must be managed to prevent offensive odour migration beyond the boundary. Specific controls include: - WTP Sludge: WTP sludge bins must be sealed/covered and removed regularly to prevent anaerobic odour generation. - Contamination / naturally occurring odours: If odorous material (e.g., hydrocarbons, organics, sulphates, etc.) is encountered during excavation, apply odour suppressants or cover immediately. - Venting: Direct ventilation exhausts away from sensitive receivers.	Engineering Control	As Continuous, As required	Site Supervisor / WTP Operator	CEMF-AQ3	WTP Operation & Maintenance Manual / Unexpected Finds Procedure
AQ-12	Prioritise the use of low-VOC (Volatile Organic Compound) paints, adhesives, sealants, and carpets during station fit-out to meet sustainability targets and protect worker health.	Substitution	Procurement / Installation	Design Manager / Procurement Lead	PS01 - 1.4.11.5.1 (c), PS02 - 2.7.2.22.1 (f), PS03- 3.2.1 (u)	Sustainability Management Plan / Materials Register
AQ-13	Coordinate with Interface Contractors (e.g., Linewide, Tunnelling) regarding cumulative dust impacts, shared haul routes, and wheel wash maintenance, street sweeping shared haul routes / accesses, discussing cumulative dust risks at interface meetings.	Administrative	Weekly	Integration and Interface Manager	CoA C6(d); CEMF-AQ1	Interface Coordination Meetings / Interface Control Document

ID	Measure	Control Type	Timing / Frequency	Responsibility	Source / Reference	Relevant Management Document / Process
AQ-14	Exposed surfaces and stockpiles must be covered or sealed prior to periods of no work (e.g. long weekends and holiday shutdowns).	Engineering / Administrative	Prior to shutdowns	Site Supervisor	CEMF-AQ1	AMP / ECM
AQ-15	Designated haulage and access routes and appropriate vehicle speed limits must be implemented and maintained on sealed and unsealed roads to minimise dust generation.	Administrative	Continuous	Site Supervisor	CEMF-AQ1	AMP / ECMs / Site Induction, Traffic Management Plans (TMPs)
AQ-16	Diesel or petrol-powered generators must be avoided where practicable, with mains electricity or battery-powered equipment used where feasible.	Substitution	Procurement	Station Manager	CEMF-AQ2	Procurement Register / Scope of Works / Plant Register / AMP
AQ-17	Key requirements of this Procedure will be regularly communicated to Project personnel, including subcontractors through the Project Induction, Pre-Start Briefings and Toolbox Talks. Relevant topics to be communicated may include: - Seasonal risks (e.g., windy weather protocols), review of dust controls, and spill/odour response - Visual site surveillance to identify "excessive" dust and exhaust smoke (longer than 10 seconds) and implementation of the TARP (Section 4.1.2) - Importance of plant and equipment pre-start inspections and maintenance - Unique site risks, such as Westmead (Clinical air intakes), North Strathfield (Boarding school hours), and The Bays (Heritage fabric soiling). - Awareness of low-VOC product requirements (paints, sealants) and protection of ductwork during installation.	Administrative	Project Onboarding / Construction	Superintendent / Site Supervisors Environmental Advisor	Best Practice	Induction / Toolbox Records

3.3 Construction Planning and Work Authorisation

To ensure that the specific mitigation measures and requirements identified in this Procedure are implemented appropriately, the required actions are to be included in Activity Management Plans (AMP) and Environmental Control Maps (ECMs). Typical air quality management content to be included in the relevant construction document is provided in Table 3-3.

Table 3-3: Typical Construction Planning and Work Authorisation Content

Document	Air Quality Management Content
ECMs	- Location of nearby sensitive receivers (e.g., hospital air intakes, schools, outdoor dining areas) and the prevailing wind direction - Location of physical dust controls, including wheel wash/rumble grids at egress points, designated stockpile areas, and water supply points for dust suppression carts - Designated internal haul routes and site access points to manage tracking of dirt onto public roads.
AMP	- Task-based dust suppression methods - Relevant "Stop Work" triggers (e.g., ceasing external dust-generating works during high winds where dust cannot be adequately controlled or suppressed) and visual monitoring frequencies. Sites will be checked for fugitive dust emissions when wind speeds reach >16m/s - Requirements for plant selection and maintenance, including visual emission checks and anti-idling protocols.

4 MONITORING AND VERIFICATION

4.1 Inspections and Verification

4.1.1 Verification Monitoring and Inspections

Inspection and verification activities under this Procedure focus on confirming that air quality controls (including water suppression systems, stockpile covers, gate controls, and plant emission controls) are installed and functioning as required. Table 4-1 summarises the verification and inspection activities relevant to air quality management during SPW works.

Table 4-1: Air Quality Inspection and Verification Activities

Activity	Frequency	Verification Focus	Responsibility	Reporting
Visual Dust Surveillance	Daily (Continuous during works)	Verify no visible dust is crossing the site boundary and no track-out of mud on public roads. Confirm water carts/misters are active during dust-generating works and stockpiles are covered/stabilised. Immediate implementation of the Visual TARP if dust is observed.	Site Supervisor	Daily Pre-start / Site Diary
Environmental Inspection	Weekly	Inspect and evaluate the effectiveness of the implementation of on-site air quality and dust minimisation controls	Environment Advisor	E&S Inspection Checklist

Activity	Frequency	Verification Focus	Responsibility	Reporting
Meteorological Monitoring	Daily (Review forecast at pre-start)	Monitor wind speed and rainfall. During high winds (or site-specific trigger), visually assess if dust-generating activities (e.g., external cutting, earthworks) require additional controls or need to cease in the event dust cannot be adequately controlled. Sites will be checked for fugitive dust emissions when wind speeds reach >16m/s	Environment Advisor / Site Supervisor	Pre-start Briefing / Weather Log
Plant & Equipment Inspection	Pre-start (Daily) & Pre-mobilisation	Visual inspection to ensure no visible smoke from plant/equipment. Verify plant is maintained in accordance with manufacturer specs to minimise exhaust emissions.	Plant Operator / Site Supervisor	Plant Pre-start Checklist / Plant Induction Record
Odour Monitoring	During Excavation (of potentially odorous material)	Verify that no offensive odours are detected beyond the site boundary during the disturbance of potential/known contaminated material (e.g., unexpected finds, sludge handling).	Environment Advisor / Site Supervisor	Site Diary / Environmental Inspection Checklist

4.1.2 Visual Air Quality TARP

Real-time instrumental monitoring is not proposed as a default control for SPW works and instead monitoring requirements will be risk-based and implemented where required by the Planning Approval/CEMF, ER direction, complaints, or site conditions.

A Visual Trigger Action Response Plan (TARP) will be implemented to monitor dust and emissions events based on observed conditions and meteorological forecasts.

Table 4-2: Visual Air Quality TARP

Trigger Level	Trigger Condition	Required Action	Responsibility
Green (Standard)	- Wind speed (low) - No visible dust leaving the site boundary. - No air quality complaints.	- Continue standard mitigation measures (refer Table 3-2) - Routine daily visual surveillance by Site Supervisors.	Site Supervisor
Amber (Alert)	- Forecast: High winds (or site-specific trigger) or hot/dry conditions predicted. - Observation: Visible dust within the site boundary is increasing but not leaving the site. - Olfactory: Faint odours detected at boundary.	- Increase frequency of water cart/misting application. - Inspect stockpile covers and stabilisation. - Review planned high-risk activities (e.g., concrete cutting, external earthworks) and defer if necessary. - Notify Station Manager	Site Supervisor / Environment Advisor
Red (Action)	- Observation: Visible dust plume leaving the site boundary. - Complaint: Valid community complaint regarding dust or odour. - Olfactory: Strong/offensive odour detected at boundary. - Equipment: Visible smoke from plant	- STOP WORK immediately for the specific dust-generating activity. - Investigate the source and apply remedial controls (e.g., immediate wetting, shut down plant) - Work may only recommence once dust/odour is contained. - Record event in Site Diary and Environmental Inspection Checklist.	Site Supervisor / Station Manager

4.2 Reporting

Reporting will be undertaken to demonstrate compliance with the Planning Approval and CEMF. Table 4-3 summarises the broader reporting obligations required to verify the implementation of this AQMP.

Table 4-3: Air Quality Reporting Obligations

Report Name	Source Reference	Report Details	Timing	Report Recipient
Monthly Environmental Report	CEMF Contract Requirements	Summary of air quality performance including: - Results of visual inspections and surveillance. - Summary of complaints (dust/odour) and resolution status. - Details of any non-compliances or corrective actions. - Weather register summary (days where works ceased due to wind).	Monthly	Sydney Metro / Environmental Representative (ER)
Inspection Records (Checklists)	CEMF REMM AQ1	Documented records of: - Daily visual checks of dust controls (water carts, covers). - Meteorological monitoring logs. - Plant emission pre-start checks.	Retained on site (available for inspection).	Sydney Metro / ER (Upon Request / During Audit)
Sustainability Report	EIS Ch 18; CEMF 3.2	Reporting on sustainability targets relevant to air quality, including: - Use of low-VOC paints/sealants (% of total paints/sealants used). - Fuel consumption and plant efficiency data.	As per Sustainability Management Plan.	Sydney Metro

APPENDICES

Appendix A Construction Air Quality Management Compliance Matrix

Table A-1 Relevant Conditions of Approval

CoA No.	Requirement	Document Reference
E1	All reasonably practicable measures must be implemented to minimise the emission of dust and other air pollutants during construction.	Table 3-2 and Section 4.1

Table A-2 Relevant CEMF Requirements

Clause	Requirement	Document Reference
12.1 a.	The following air quality management objectives will apply to construction: i. Minimise gaseous and particulate pollutant emissions from construction activities as far as feasible and reasonable; and ii. Identify and control potential dust and air pollutant sources.	Section 1.3
12.2 a.	Principal Contractors will develop and implement an Air Quality Management Plan which will include, as a minimum: i. The air quality mitigation measures as detailed in the environmental approval documentation and Appendix B of this Construction Environmental Management Framework; ii. The requirements of any approval and applicable licence conditions;	Relevant CEMF mitigation measures and where they have been addressed in this Procedure is provided below in this table. Approval conditions related to air quality are provided above in Table A-1. As the Project is not a 'Scheduled Activity' there are no EPL conditions related to air quality that are applicable.
	iii. Site plans or maps indicating locations of sensitive receivers and key air quality / dust controls;	Locations of sensitive receivers surrounding the SPW sites are provided in the ECMs in the CEMP (Appendix H).
	iv. The responsibilities of key project personnel with respect to the implementation of the plan;	Section 1.4
	v. Air quality and dust monitoring requirements; and	Inspection and visual air quality monitoring protocols are provided in Section 4.1
	vi. Compliance record generation and management.	Relevant compliance records are detailed in Table 3-2 and Section 4.

Clause	Requirement	Document Reference
12.2 b.	Air quality and dust monitoring will involve the following as a minimum: i. Meteorological conditions will be monitored and appropriate responses will be organised and undertaken periodically by the Principal Contractor; ii. Regular visual monitoring of dust generation from work zones; and iii. Monitoring emissions from plant and construction vehicles to ensure they have appropriate emission controls and are being maintained correctly.	Section 4.1.1(Table 4-1)
12.2 c.	The following compliance records will be kept by the Principal Contractor: i. Records of any meteorological condition monitoring; ii. Records of any management measures implemented as a result of adverse, windy weather conditions; and iii. Records of air quality and dust inspections undertaken.	These compliance records have been included in Section 4 (Table 4-1, Table 4-3)
CEMF-AQ1	The following dust management measures would be implemented during construction works: • Regularly wet-down exposed and disturbed areas including stockpiles, active earthwork areas, unsurfaced haul roads and loads of soil being transported to reduce wind-blown dust emissions, especially during dry weather • Minimise the number of stockpiles onsite, and: – avoid stockpiling in exposed areas – position stockpiles away from surrounding receivers – appropriately cover or seal exposed areas prior to periods of no work (e.g. long weekends, picnic day weekends, holiday periods) – progressively rehabilitate exposed areas on completion of different work stages, including providing temporary cover and commencing permanent landscaping as early as possible • Wheel-wash facilities or rumble grids would be provided and used near the site exit points, as appropriate • Ensure vehicles and mobile plant: – use designated haulage and access routes and that appropriate vehicle speeds are assigned on sealed and unsealed roads – are covered when entering or exiting the site when carrying loads – are maintained in accordance with manufacturer specifications • Dust extraction and filtration systems would be installed for tunnel excavation works and deep excavation with limited surface exposure • The intensity of activities would be adjusted based on measured and observed dust levels and weather forecasts • Consider all relevant measures listed in the Guidance on Monitoring in the Vicinity of Demolition and Construction Sites (Version 1.1), (Institute of Air Quality Management, 2018) corresponding to the highest level of risk determined around each construction site.	Table 3-2 (AQ-01 to AQ-06, AQ-09, AQ-10, AQ-13 to AQ-15), Section 4.1

Clause	Requirement	Document Reference
CEMF-AQ2	Maintain plant and equipment in a proper and efficient manner including the following tasks: • Conduct visual inspections of emissions from plant as part of pre-acceptance checks • Switch off plant and equipment when not in-use • Avoid diesel or petrol-powered generator use wherever possible with mains electricity or battery powered equipment used wherever practicable.	Table 3-2 (AQ-07, AQ-08, AQ-16), Section 4.1
CEMF-AQ3	The following best-practice odour management measures would be implemented during relevant construction works: • The extent of opened and disturbed contaminated soil at any given time would be minimised • Temporary coverings or odour suppressing agents would be applied to excavated areas where appropriate • Regular monitoring would be conducted during excavation to verify that no offensive odours are being detected beyond the site boundary.	Table 3-2 (AQ-11), Section 4.1

Appendix K: Flora and Fauna Management Procedure

PROCEDURE

Flora and Fauna Management Procedure
Sydney Metro West – Stations Package West

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TERMS AND DEFINITIONS

Term	Definition
AMP	Activity Management Plan(s)
AS	Australian Standard
BAM	Biodiversity Assessment Method
CoA	Conditions of Approval
CEMF	Sydney Metro Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CSSI	Critical State Significant Infrastructure
CTP	Central Tunnelling Package
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DECCW	Department of Environment, Climate Change and Water (as cited in “NSW Water Quality and River Flow Objectives (DECCW, 2006)”)
DPHI	Department of Planning, Housing and Infrastructure
DPI	Department of Primary Industries
EEC	Endangered Ecological Community(ies)
ECM	Environmental Control Map(s)
EIS	Environmental Impact Statement
EMS	Environmental Management System
EPA	Environment Protection Authority
ER	Environmental Representative
ESCP	Erosion and Sediment Control Plan
ETP	Eastern Tunnelling Package
FFM	Flora and Fauna Mitigation measure ID prefix
FFMP	Flora and Fauna Management Procedure
GA	Gamuda / Gamuda Engineering Australia
IMS	Integrated Management System
ISO	International Organization for Standardization (as part of “AS/NZS ISO 14001:2016”)
Landcom	Landcom (as cited in “Managing Urban Stormwater: Soils and Construction (Landcom, 2004)”)
NRAR	Natural Resources Access Regulator (as cited in “Guidelines for Controlled Activities on Waterfront Land (NRAR, 2018)”)
NSW	New South Wales
OOHW	Out of Hours Works
OSD	Over-Station Development
PCT	Plant Community Type
PESCP	Progressive Erosion and Sediment Control Plan(s)
REMMs	Revised Environmental Management Measures
RtS	Response to Submissions
SEARs	Secretary’s Environmental Assessment Requirements
SMART	Specific, Measurable, Achievable, Realistic, Timely
SPW	Stations Package West
TfNSW	Transport for New South Wales

Term	Definition
TPP	Tree Protection Plan
TPZ	Tree Protection Zone(s)
VAMP	Visual Amenity Management Procedure
WTP	Western Tunnelling Package

1 INTRODUCTION

1.1 Purpose

The purpose of this Construction Flora and Fauna Management Procedure (FFMP or Procedure) is to describe the flora and fauna management measures that will be implemented during construction of the Sydney Metro Stations Package West (SPW) Project.

1.1.1 Relationship with other Project Documents

The key documents this Procedure interfaces with to ensure project requirements are implemented are detailed in Table 1-1.

Table 1-1: Key Document References

Document	Document Reference	Interface
Construction Environment Management Plan (CEMP)	SMWSTSPW-GEA-SWD-EN-PLN-000001	This Procedure forms an appendix of the CEMP. Provides the overarching environmental management framework for the Project, including governance, roles and responsibilities, incident and non-compliance management, consultation, monitoring, training and document control requirements that apply to flora and fauna management. Interfaces with this Procedure regarding Environment in Design (Section 2.6) related to tree replacement requirements.
Visual Amenity Management Sub-Plan	SMWSTSPW-GEA-SWD-EN-PLN-000010	Manages temporary visual amenity impacts associated with SPW construction site lighting, hoarding and boundary vegetation. Interfaces with this Procedure regarding light spill to minimise disruptions to fauna, and protection measures and monitoring for retained trees and vegetation.
Soil and Water Management Plan	SMWSTSPW-GEA-SWD-EN-PLN-000008	Manages surface water interactions, stormwater capacity, and erosion and sediment controls (ESCPs) to prevent sediment-laden runoff and other contaminants affecting water quality in receiving waterways. Interfaces with this Procedure regarding the management of surface water runoff to minimise impacts on aquatic habitats
Surface Water Quality Construction Monitoring Program	SMWSTSPW-GEA-SWD-EN-PRG-000003	Defines the monitoring regime for receiving water environments (e.g., stormwater network or harbour) to verify that Water Treatment Plant discharges do not result in adverse water quality impacts within each receiving waterway.

1.2 Flora and Fauna Objectives

The objectives of this FFMP are to:

- Minimise construction-related impacts on flora and fauna through avoidance, protection, and verification controls.
- Prevent accidental damage to retained vegetation and habitat features through demarcation, hold points, and supervision.
- Prevent spread of weeds and plant pathogens through practical hygiene and weed controls where required.
- Implement required stop-work, notification, and verification actions for unexpected ecological finds.
- Demonstrate compliance with relevant CoA, REMMs and CEMF requirements applicable to SPW works.

1.3 Roles and Responsibilities

The roles and responsibilities of key Project personnel with respect to the management of flora and fauna are defined in Table 1-2. These roles are consistent with the governance structure established in Section 4 of the SPW CEMP.

Table 1-2: Flora and Fauna Management Responsibilities

Role	Responsibility
Environment Operations and Approval Lead	- Provide oversight of planning approval compliance and interpretation of CoA, REMMs and CEMF requirements. - Support environmental risk assessment and review of AMP controls for flora and fauna risks. - Interface with Sydney Metro and the Environmental Representative (ER) and support regulatory consultation/notifications where required under the Project's environmental incident and non-compliance processes.
Stations Manager	- Ensure day-to-day implementation of flora and fauna mitigation measures at each station site. - Confirm environmental controls (e.g. TPZs, exclusion fencing, ECM requirements) are installed prior to works. - Enforce environmental hold points and stop-work requirements where triggered. - Coordinate construction teams to comply with approved AMPs and ECM requirements.
Senior Environment Advisor / Environment Advisor	- Undertake inspections, monitoring and verification activities. - Maintain environmental documentation (permits to clear, inspection records, ECM updates). - Deliver toolbox talks and site awareness training relating to flora and fauna management. - Provide environmental advice to construction teams to support compliant delivery.
Site Engineers / Superintendents	- Implement mitigation measures within daily construction activities. - Ensure environmental controls identified in AMPs and ECMs are maintained. - Stop work and escalate where unexpected ecological risks are identified. - Support inspection and verification activities.
Integration and Interface Manager	- Coordinate environmental interfaces with adjacent packages, utilities works, and third-party stakeholders. - Ensure interface risks relating to retained vegetation, waterways, lighting or shared site boundaries are identified and managed. - Support integration of ecological controls into staging, logistics and design interfaces.

1.4 Project Requirements

This section identifies the statutory, approval and Project-specific requirements that apply to the management of construction flora and fauna impacts for the SPW works. These requirements establish the mandatory framework within which construction flora and fauna impacts must be assessed, managed and monitored during delivery of the Project.

1.4.1 Relevant Legislation, Specifications, Guidelines and Standards

Flora and fauna associated with the SPW works must be managed in accordance with the legislation, standards, specifications and guidelines listed in Table 1-3, as applicable. These instruments establish the statutory and technical framework for the assessment and management of construction flora and fauna impacts for the Project.

Where inconsistencies exist, statutory requirements and Planning Approval Conditions of Approval take precedence, followed by applicable contractual requirements and guidance documents.

Table 1-3: Relevant Legislation, Specifications, Guidelines and Standards

Category	Instrument
Legislation	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
	<i>Protection of the Environment Operations Act 1997 (NSW)</i>
	<i>Biodiversity Conservation Act 2016 (NSW)</i>
	<i>Biosecurity Act 2015 (NSW)</i>
	<i>Fisheries Management Act 1994 (NSW)</i>
	<i>National Parks and Wildlife Act 1974 (NSW)</i>
	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
	<i>Pesticides Act 1999 (NSW)</i>
	<i>Water Management Act 2000 (NSW)</i>
	<i>Coastal Management Act 2016 (NSW)</i>
	<i>Crown Land Management Act 2016 (NSW)</i>
Sydney Metro Requirements	Sydney Metro Construction Environmental Management Framework (CEMF)
Government Guidelines and Policies	Managing Urban Stormwater: Soils and Construction, Volume 1 (Landcom, 2004) and Volume 2 (DECC, 2008) (the “Blue Book”)
	Guidelines for Controlled Activities on Waterfront Land (NRAR, 2018)
	Policy and Guidelines for Fish Habitat Conservation and Management (DPI Fisheries, 2013)
	Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (Fairfull & Witheridge, 2003)
	Biodiversity Assessment Method (BAM) (DPIE, 2020)
	Risk Assessment Guidelines for Groundwater Dependent Ecosystems (NSW Office of Water, 2012)
	Best Practice Management Guidelines for <i>Phytophthora cinnamomi</i> within the Sydney Metropolitan Catchment Management Authority Area (Botanic Gardens Trust, 2008)
	Hygiene protocol for the control of disease in frogs (DECC, 2008)
	NSW Weed Control Handbook (DPI, 2018)
	Greener Places: An urban green infrastructure design framework for NSW (GA NSW, 2020)
	Connecting with Country Framework (GA NSW, 2020)
	Better Placed: An integrated design policy for the built environment of NSW (GA NSW, 2017)
	Sydney Green Grid – Spatial Framework and Project Opportunities (2017)
Australian and International Standards	AS 4970-2009 Protection of trees on development sites
	Australian Standard AS 4373-2007 Pruning of amenity trees
	AS 4282-2019 Control of the obtrusive effects of outdoor lighting
	AS/NZS ISO 14001:2016 Environmental Management Systems

1.4.2 CoA and REMMs

This FFMP has been prepared to satisfy CoA C1 and the Phasing Report that require the preparation and implementation of a Construction Flora and Fauna Management Procedure for the SPW works. This FFMP also gives effect to the REMMs relevant to construction flora and fauna management, as identified in the EIS and RtS Report.

A consolidated register of all CoA, REMMs and CEMF requirements relevant to construction flora and fauna management, including how each requirement is addressed by this FFMP or associated documents, is provided in Appendix A.

2 FLORA AND FAUNA RISK CONTEXT

This section documents the flora and fauna risk context for construction of the SPW works at each station site. It is based on a sequenced evidence framework comprising:

- Assessments undertaken for the EIS (Chapters 7, 10 to 13) and RtS Report (Section 6, 7 and Appendix C),
- Outcomes of construction (i.e. previous clearing) undertaken by the Central Tunnelling Package (CTP), Eastern Tunnelling Package (ETP) and Western Tunnelling Package (WTP) contractors; and
- Confirmation of the status of inherited site conditions during SPW site possession and handover.

The existing flora and fauna environment described in this section reflects an inherited, post-excavation condition. Flora and fauna at the Project sites have been subject to multi-year demolition and clearing, bulk excavation and civil construction activities, and monitoring by previous contractors. Accordingly, this section is intentionally focused on summarising the residual risks associated requiring management during station fit-out and surface works.

It is noted that some construction activities assessed in the EIS are outside of the SPW scope and will be delivered as part of a separate package of works as detailed in Stage 3 Phasing Report. Activities not related to the SPW Project that were identified to have potential flora and fauna impacts include:

- Minor vegetation removal of planted native and exotic species adjacent to the existing Westmead Train Station and rail corridor as part of the precinct and interchange works
- Removal of planted landscaping trees on the platform of the existing North Strathfield Train Station.

2.1 Key Risk Activities to Flora and Fauna

The Project EIS identified that each Project site is located within highly urbanised environments, with histories of clearing and development over the past 200 years. SPW works primarily involves the construction of geographically discrete station precincts within areas largely cleared of previous structures and vegetation under previous Sydney Metro West projects.

The key SPW activities with the potential to interact with flora and fauna include:

- Vegetation removal of planted street trees to facilitate construction vehicle access and egress at Burwood North as shown in Figure 2-1
- Removal of isolated areas of weed species, landscaped and regenerated exotic and native species at The Bays as shown in Figure 2-2
- Removal of heritage listed landscaped garden beds at North Strathfield as shown in Figure 2-3
- Construction of station plazas, precincts, including associated public domain works and transport interchanges on surrounding footpaths and local roads. These works would occur adjacent to retained street trees and landscape plantings at all five Project sites
- Construction-phase lighting, noise and human activity which could cause minor disruption to fauna around each site
- Runoff and potential mobilisation of contaminants (such as sediment and/or spills) from construction sites to nearby aquatic ecosystems
- Landscaping works and tree replacement will which result in a net increase in mature trees at a ratio of 2:1.



Figure 2-1: Proposed vegetation removal at Burwood North

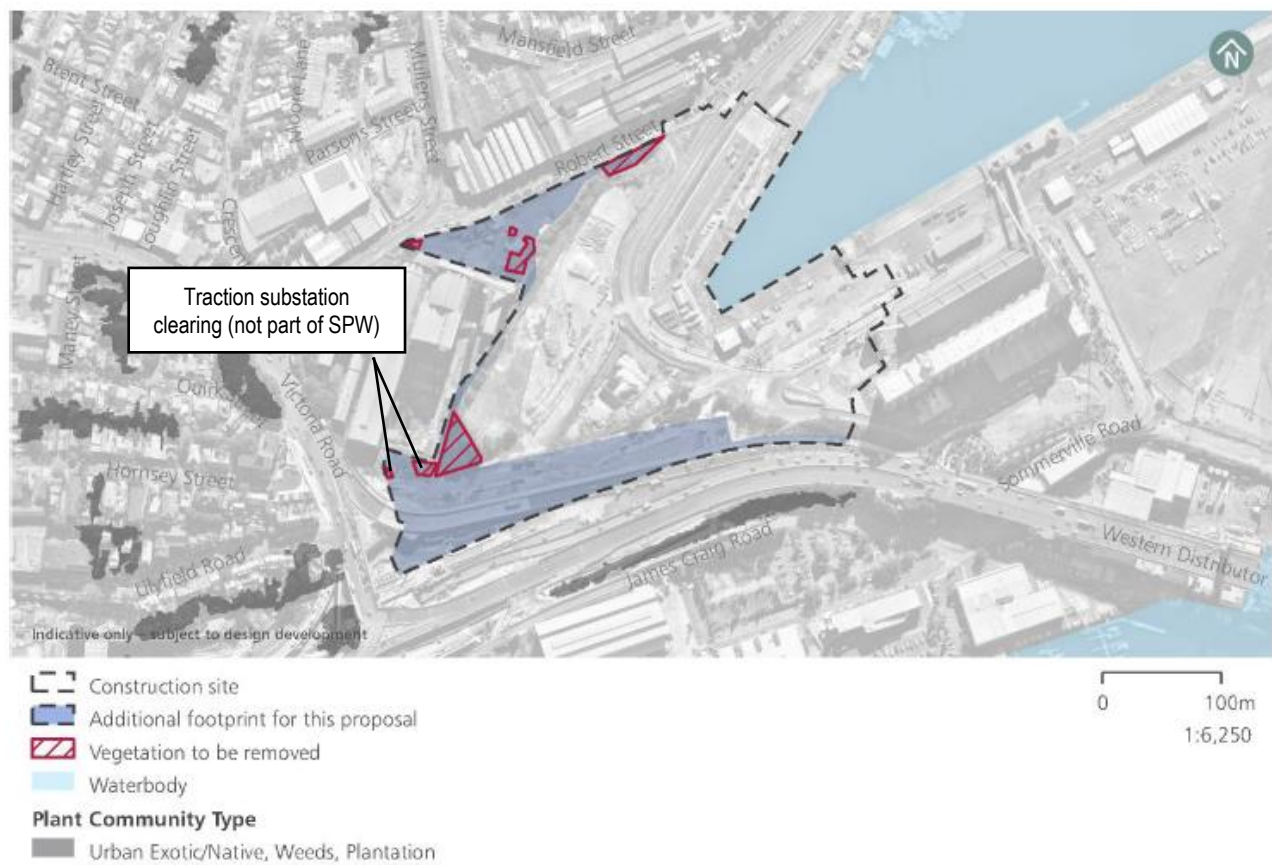


Figure 2-2: Proposed vegetation removal at The Bays



Figure 2-3: Proposed vegetation removal at North Strathfield

2.2 Flora and Fauna Receivers

Given each SPW site has been largely cleared of previous structures and vegetation under the previous Project phases, relevant flora and fauna receivers are largely comprised of planted and/or exotic vegetation, as well as nearby waterways which receive runoff from the Project sites as detailed in Table 2-1.

2.3 Flora and Fauna Risk Summary

The EIS did not any identify remnant native vegetation, threatened ecological communities, groundwater dependent ecosystems (GDEs), threatened flora or fauna species, migratory species or aquatic habitats which could potentially be impacted by SPW works.

Table 2-1 consolidates the residual, delivery-phase flora and fauna risks identified for the SPW works across all station sites, based on the detailed station-specific flora and fauna contexts. It reflects the inherited site conditions following completion of bulk excavation and tunnelling by the preceding packages and focuses on the nature and magnitude of flora and fauna interactions relevant to SPW construction activities.

Table 2-1: Station Specific Flora and Fauna Receivers & Risk Summary

Station	Nearby Receivers	Flora and Fauna Risk / Management Focus	Risk Rating	Station Specific Mitigation Measures
Westmead	- Adjacent Rail Corridor: The SPW site is in "close proximity" to the rail corridor, which contains patches of Grey Box Woodland (PCT 849) regrowth. - Domain Creek: Discharges via local stormwater network.	- Water Quality: Strict sediment and erosion controls are required for all surface water and dewatering discharges to prevent pollution of Domain Creek. - Note: Direct impacts to rail corridor vegetation are managed by a separate contractor/package.	Low	No, standard sediment and erosion controls apply (implemented through ESCP/ECMs/AMPs and routine inspection/verification in accordance with the Soil and Water Management Plan (SWMP)).
North Strathfield	- Heritage landscaped Garden Bed & Street Trees: Public domain works along Queen Street and the station heritage gardens. - Powells Creek: Concrete lined channel ~400m west.	- Tree Protection: Public domain works on Queen Street must preserve existing trees via Tree Protection Zones (TPZs) during crane movements and logistics. - Urban Habitat: Management of urban habitat loss (garden removal) through approved design scope (outside FFMP controls).	Low	No, standard TPZ controls apply (implemented through TPP/ECMs/AMPs and routine inspection/verification).
Burwood North	- St Lukes Park Canal: Concrete channel located east of the station site (drains to Canada Bay). - Street Trees: Planted trees on Loftus, Burton, and Burwood Roads.	- Water Quality: The site discharges to the canal. Strict erosion controls are required to prevent alkaline runoff or sediment entering the canal. - OSD Enabling: SPW includes OSD enabling works; care must be taken to protect street trees during these surface structural works.	Low	No, standard controls apply.
Five Dock	- Iron Cove Creek (Dobroyd Canal): Located ~600m north (Key Fish Habitat). - Street Trees: Trees at Fred Kelly Place and Great North Road.	Tree Protection: Vegetation removal is not currently identified; management focus is avoiding damage to adjacent street tree canopies during hoarding installation and facade works. Management focuses on avoiding damage to street tree canopies during hoarding installation and facade works.	Low	No, standard controls apply.
The Bays	- White Bay (Sydney Harbour): The site is adjacent to White Bay. Sydney Harbour is mapped as Type 1 Key Fish Habitat. - Microbats: Potential for roosting in nearby structures.	- Aquatic Risk: The site drains directly to the bay. Strict management of litter and chemicals is required to prevent pollution of the harbour. - Light Spill: Directional lighting is required to avoid illuminating the water surface to minimise disturbance to marine fauna. - Pre-Clearance: Checks for microbats prior to any structural demolition.	Low	No, standard sediment and erosion controls apply in accordance with the SWMP, and lighting controls apply (implemented through ESCP/ECMs/AMPs/OOHWP permitting and routine inspection/verification).

3 ENVIRONMENTAL MITIGATION MEASURES

This section sets out the construction flora and fauna mitigation measures to be implemented for the SPW works. Measures are presented in a structured register format to support construction planning, consistent implementation across sites, and auditable demonstration of compliance with the Planning Approval (CoA and REMMs) and Sydney Metro requirements (including the CEMF).

Mitigation measures are grouped as follows:

- Standard measures (Section 3.2): Measures that apply across all SPW works and station sites unless otherwise stated.
- Vegetation Clearing and Relocation Procedure (Section 3.3): Defines the mandatory planning, inspection, hold points, and verification requirements for vegetation clearing, trimming or relocation activities, including ecologist sign-off and controlled clearing sequencing where habitat features are identified.
- Unexpected Threatened Species and/or EEC Procedure (Section 3.4): Defines the mandatory stop-work response, verification, notification, consultation, and mitigation or relocation process where unexpected threatened species or endangered ecological communities are identified during construction.

The mitigation measures and procedures described in this Section collectively demonstrate implementation of relevant CEMF flora and fauna requirements. Where specific procedures are required to control higher-risk activities (e.g. vegetation clearing or unexpected ecological finds), these are provided in Sections 3.3 and 3.4. All other mitigation measures are implemented through Activity Management Plans (AMPs), Environmental Control Maps (ECMs), inspection regimes, and standard construction environmental controls defined within the CEMP.

3.1 Control Hierarchy and SMART Application

Construction flora and fauna management for the SPW works is implemented through a structured hierarchy of controls consistent with the principles of avoidance, minimisation, management and verification, and aligned with the SMART framework (Specific, Measurable, Achievable, Realistic and Timely).

Table 3-1 illustrates the control hierarchy applied under this Plan and how SMART requirements are embedded into the selection, implementation and verification of mitigation measures.

Table 3-1: Control Hierarchy and SMART Application

SMART	Control Type	Example
S – Specific, what must be done	Avoid / Eliminate	Configure laydown/hoarding to avoid encroachment into TPZs / exclusion zones.
M – Measurable, how it will be checked	Substitute / Minimise at Source	Use directional/shielded lighting where night works occur near sensitive interfaces.
A – Achievable, can be implemented in construction	Engineering	Install physical controls to prevent sediment/litter/chemicals entering drainage leading to receiving waters.
R – Realistic, practical for site conditions	Administrative	Permit-to-clear and hold point prior to vegetation disturbance; unexpected finds stop-work process.
T – Timely, applied when required	Receiver Based Mitigation	Temporary protection or avoidance measures implemented where works interface with retained vegetation or sensitive ecological areas (e.g., TPZ exclusion zones).

3.2 Standard Flora and Fauna Mitigation Measures

Standard mitigation measures applicable across the SPW works are provided in Table 3-2. These measures apply to all station sites and works activities unless explicitly identified as station-specific in subsequent subsections.

Table 3-2: Standard Flora and Fauna Mitigation Measures

ID	Measure	Control Type	Timing / Frequency	Responsibility	Source / Reference	Relevant Management Document / Process
FFM1	Vegetated areas to be retained and/or identified adjacent habitat areas (e.g., street trees, rail corridor vegetation) must be fenced off or delineated prior to works to prevent damage or accidental over-clearing. Exclusion zones must be marked on Environmental Control Maps (ECMs).	Administrative / Engineering	Pre-construction / Daily	Stations Manager	CoA E55, CEMF-FF1, CEMF-LV7	Environmental Control Map (ECM) (Signed on site) Weekly Environmental Inspection Checklist (Verifying fencing integrity)
FFM2	Existing trees to be retained (specifically street trees at Burwood North, Five Dock, and North Strathfield) must be protected in accordance with AS 4970-2009 Protection of trees on development sites prior to the commencement of works.	Engineering	Pre-construction / Construction	Stations Manager	CEMF-LV8	Tree Protection Plan (TPP) (Site Copy) Weekly Environmental Inspection Checklist (Verifying TPZ integrity)
FFM3	A pre-clearing inspection must be undertaken prior to any native vegetation clearing by a suitably qualified ecologist and the Contractor's Environment and Sustainability Manager (or delegate) to verify clearing extent and identify habitat features (if any) that would trigger controlled clearing requirement. Clearing of mature trees will consider trimming instead of removal wherever practicable.	Administrative	Prior to any native vegetation clearing	Environment and Sustainability Manager (or delegate) / Project Ecologist	CEMF-FF2	Vegetation Clearing and Relocation Procedure (refer Section 3.3); Permit to Clear; Pre-Clearing Inspection Record
FFM4	Where habitat trees are identified, clearing must follow a two-stage process: - Non-habitat trees cleared first after sign-off of the pre-clearing inspection; and - Habitat trees cleared no sooner than 48 hours after non-habitat trees have been cleared.	Administrative	During clearing (where habitat trees occur)	Stations Manager / Project Ecologist / Environment and Sustainability Manager (or delegate)	CEMF-FF2	Vegetation Clearing and Relocation Procedure (refer Section 3.3); Permit to Clear; Daily site diary (ecologist attendance); Clearance records

ID	Measure	Control Type	Timing / Frequency	Responsibility	Source / Reference	Relevant Management Document / Process
	A suitably qualified ecologist will be present during clearing of habitat trees. Felled habitat trees will be left on the ground for 24 hours or inspected by the ecologist prior to further processing.					
FFM5	Weed management will be undertaken in areas affected by construction prior to any clearing works and during delivery where required. Management will accord with the Biosecurity Act 2015 and site hygiene practices to prevent the introduction or spread of weeds or pathogens.	Administrative	Pre-construction / Ongoing	Stations Manager	CEMF-FF3	Weed / hygiene checklist and inspection records (site inspections); cleaning / biosecurity controls (as applicable)
FFM6	If unexpected threatened species and/or an EEC is identified (or reasonably suspected), stop work, secure the area, obtain ecologist verification, complete required notifications/consultation via the project incident/non-compliance process (where applicable), implement agreed controls, and issue a Hold Point Release prior to recommencement.	Administrative	As required	All personnel (stop-work trigger); Stations Manager; Environment and Sustainability Manager (or delegate); Project Ecologist	CEMF 9.2(xi) CEMF Section 3.9	Unexpected Threatened Species and/or EEC Procedure (refer Section 3.4); Unexpected Finds Register; Incident / non-compliance reporting process
FFM7	Lighting of construction sites must be orientated to minimise glare and light spill impacts on adjacent sensitive receivers and waterway interfaces (where applicable) and must be installed and operated in accordance with AS 4282-2019 Control of the obtrusive effects of outdoor lighting.	Engineering	Night Works	Stations Manager	CEMF-LV5	OOHW Permit (Lighting check section) Night works verification checklist (lighting orientation/shielding checks)
FFM8	Prior to the demolition of any structures or removal of mature trees at The Bays, inspections for microbat roosting must be undertaken.	Administrative	Pre-Construction	Senior Environment Advisor	CEMF Clause 9.2(b)(i)	Permit to Clear (with attached Ecologist Clearance Certificate) Pre-Demolition Inspection Report
FFM9	Clearing information will be provided to the SPW Design Team to inform the permanent landscaping design for the station precincts in order to achieve a net increase in the number of mature trees at a ratio of 2:1. Opportunities for plantings on council land in the vicinity of the SPW sites will also be investigated if a net increase cannot be achieved solely within the Project boundary.	Substitute	Clearing / Design	Environment and Sustainability Manager (or delegate). Design Manager	CEMF-LV9, CEMF-LV10	Tree Replacement Plan (CoA E54) Design Documentation

3.3 Vegetation Clearing and Relocation Procedure

Purpose: To establish a consistent, auditable process for vegetation clearing and/or relocation (where required) that implements the FFMP mitigation measures and prevents accidental over-clearing.

Trigger / when this procedure applies: This procedure applies before any native vegetation clearing or where works may impact retained trees/vegetation and a Permit to Clear / Hold Point is required under Project controls (as reflected on the ECMs and relevant AMPs).

Roles:

- Stations Manager / Site Supervisor: Initiates clearing request via the Permit to Clear; ensures controls are installed and works follow Hold Points.
- Environment and Sustainability Manager (or delegate): Verifies requirements, conducts inspections with the Ecologist, issues environmental clearance to proceed, and retains records.
- Project Ecologist: Undertakes pre-clearing inspection where native vegetation clearing is proposed and attends habitat tree clearing if applicable.

3.3.1 Planning and control set-up (Pre-clearance preparation)

1. Confirm scope and location: Identify the vegetation proposed to be affected and confirm it is not possible to retain or instead trim the vegetation to facilitate the works. If not possible, confirm its that within the approved construction boundary/clearing limit defined in the Environmental Control Map (ECM).
2. Update / verify mapping and controls: Confirm relevant plans/ECMs show retained vegetation and adjacent habitat areas (where applicable).
3. Install protection/demarcation prior to works: Fence off vegetated areas to be retained and/or adjacent habitat areas prior to works to prevent damage or accidental over-clearing.
4. Weed management prior to clearing: Undertake weed management in areas affected by construction prior to any clearing works.

3.3.2 Pre-clearing inspection and sign-off (Hold Point)

5. Pre-clearing inspection: Where native vegetation clearing is proposed, a pre-clearing inspection must be undertaken by a Project Ecologist and the Environment and Sustainability Manager (or delegate) prior to clearing.
Document whether vegetation includes habitat trees, hollows, nests, or other habitat features requiring controlled clearing sequencing.
6. The Permit to Clear is signed by the Environment and Sustainability Manager (or delegate) and the Project Ecologist.
7. **HOLD POINT:** No clearing may proceed until the pre-clearing inspection is completed and the Permit to Clear is approved.

3.3.3 Controlled clearing (including habitat-tree sequencing if identified)

8. If no habitat trees are identified: Clear only the approved vegetation required for the activity, maintaining protection controls for retained/adjacent vegetation.
9. If habitat trees are identified — two-stage clearing process: Clearing must follow the two-stage process:
 - Stage 1: Non-habitat trees cleared first after sign-off of the pre-clearing inspection.

- Stage 2: Habitat trees cleared no sooner than 48 hours after non-habitat trees have been cleared.
 - A Project Ecologist must be present during clearing of habitat trees.
 - Felled habitat trees are to be left on the ground for 24 hours or inspected by the ecologist prior to further processing.

3.3.4 Post-clearing close-out (Verification)

10. Reconfirm boundaries and protections: Verify that clearing has occurred only within the approved clearing extent and that protection measures for retained vegetation and/or adjacent habitat areas remain effective.
11. Close-out records: Complete the Post-clearing Inspection Form and prepare a post clearance report verifying the type and area of vegetation cleared (including the number of trees removed to inform the Tree Replacement Plan in Section 4.2) to satisfy CEMF 9.2(b)(iii). Retain these records along with the Permit to Clear, ECM extracts (or equivalent demarcation records), Pre-clearing Inspection Record (where applicable), ecologist attendance record for habitat tree clearing (where applicable), and any corrective actions taken.
12. Update Environmental Control Maps (ECMs) or construction planning documentation where clearing extent or ecological controls change as a result of works.

3.4 Unexpected Threatened Species and/or EEC Procedure

Purpose: To define the mandatory response if unexpected threatened species and/or endangered ecological communities (EECs) are identified during construction, including stop work, notification, consultation, and determination of mitigation/relocation measures.

Trigger / when this procedure applies: This procedure applies when any site personnel identify (or reasonably suspect) a threatened species, an EEC, or other ecological value not anticipated in the inherited site condition and project controls.

Roles:

- All Personnel: Immediately stop work and notify the Site Supervisor if a trigger occurs.
- Stations Manager / Site Supervisor: Secures the area, installs exclusion fencing, and prevents further impact.
- Environment and Sustainability Manager (or delegate): Coordinates required notifications/consultation (including to DPHI/ER and other agencies where required), coordinates the Project Ecologist, and authorises Hold Point Release.
- Project Ecologist: Confirms identification, undertakes risk assessment, and advises on mitigation/relocation requirements.

3.4.1 Immediate response (Stop-work and secure)

1. Stop work: Immediately cease works in the immediate vicinity of the find/observation.
2. Secure and protect: Establish a physical exclusion zone (using temporary fencing or barrier tape) to prevent further disturbance until assessed.
3. Notify: Notify the Stations Manager and Environment and Sustainability Manager immediately.

3.4.2 Verification and initial assessment

4. Ecologist verification: The Environment and Sustainability Manager must engage the Project Ecologist to inspect the find and confirm whether it constitutes a threatened species and/or EEC.

5. Record the trigger: Document the location, time, photographs (if safe), and the activity underway at the time of the observation in the Unexpected Finds Register.

3.4.3 Notification and consultation

6. Regulatory notification: Complete notifications/consultation in accordance with the project Environmental Incident and Non-Compliance Reporting Procedure (including notifying DPHI/ER and other agencies where required).
7. Consultation: Determine appropriate mitigation measures in consultation with the Department (DPHI), including whether relocation is required/appropriate.

3.4.4 Determine controls and implement mitigation/relocation

8. Mitigation / relocation plan: Implement the agreed mitigation and/or relocation measures as determined through consultation. This may involve:
 - Modification to the Activity Management Plan (AMP).
 - Engagement of the Project Ecologist to relocate fauna.
 - Establishment of a permanent exclusion zone.
9. Update controls: Update environmental controls and management measures as directed through consultation outcomes.

3.4.5 Clearance to recommence works (Hold Point)

10. Hold Point Release: Works in the affected area may only recommence once the Environment and Sustainability Manager has issued a formal Hold Point Release.
11. Criteria: Release is contingent on confirmation that required mitigation/relocation actions have been implemented, the Project Ecologist has deemed the area clear, and all regulatory consultation obligations have been satisfied.
12. Relevant ECMs, AMPs or environmental controls must be updated where required before works recommence.

3.5 Construction Planning and Work Authorisation

To ensure that the specific mitigation measures and requirements identified in this Procedure are implemented appropriately, the required actions are to be included in Activity Management Plans (AMP) and Environmental Control Maps (ECMs). Typical flora and fauna management content to be included in the relevant construction document is provided in Table 3-3.

Table 3-3: Typical Construction Planning and Work Authorisation Content

Document	Flora and Fauna Management Content
ECMs	- Locations of retained vegetation, street trees, Tree Protection Zones (TPZs), exclusion fencing and any ecological no-go areas. - Sensitive environmental interfaces including waterways, drainage pathways to receiving environments (e.g. Domain Creek, Iron Cove Creek, White Bay), and adjacent habitat areas where applicable. - Required environmental controls and hold points relevant to flora and fauna management, including approved clearing limits, inspection triggers, lighting constraints where applicable, and reference to relevant permits or AMP controls.
AMP	- Identification of flora and fauna risks associated with the activity, including retained vegetation, adjacent habitat areas, waterways or sensitive ecological interfaces identified through ECMs or environmental planning documentation. - Implementation of required environmental controls and hold points, including tree protection measures,

Document	Flora and Fauna Management Content
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	exclusion fencing, lighting controls, erosion and sediment controls, pre-clearing inspections, and unexpected threatened species response requirements.
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| | <ul style="list-style-type: none">• Verification requirements for the activity, including confirmation of compliance with ECM requirements, implementation of relevant hold points, and ecologist attendance where required. |
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4 MONITORING AND VERIFICATION

4.1 Inspections and Verification

4.1.1 Verification Monitoring and Inspections

Inspection and verification activities under this Plan focus on confirming that flora and fauna controls required by the CEMF and this FFMP (including exclusion fencing/protection of retained vegetation, Tree Protection Zones (TPZs) where applicable, approved clearing limits, and vegetation clearing hold points) are installed and effective.

Monitoring for flora and fauna under the SPW works is primarily verification-based rather than ecological monitoring, reflecting the inherited urbanised site conditions and low residual biodiversity risk profile identified in Section 2.

Verification activities will be undertaken through routine environmental inspections, activity-specific verification under relevant Activity Management Plans (AMPs), and targeted inspections where triggers occur (e.g., proposed clearing or an unexpected ecological find).

Table 4-1 summarises the verification and inspection activities relevant to flora and fauna management during SPW works.

Table 4-1: Flora and Fauna Inspection and Verification Activities

Activity	Frequency / Timing	Verification Focus	Responsibility	Records
Verify exclusion fencing / protection of retained or adjacent habitat vegetation	Prior to works commencing in relevant areas and as required during works	Fencing in place and intact; exclusion zones reflected on ECMs	Stations Manager (or delegate)	Signed ECM (site copy); environmental inspection records
Verify Tree Protection Zones (TPZ) / tree protection controls (where applicable)	Prior to works commencing in relevant areas and as required during works near retained trees	Tree protection installed in accordance with AS 4970; TPZ integrity maintained	Stations Manager (or delegate)	Tree Protection Plan (site copy) (where applicable); environmental inspection records
Environmental Inspection	Weekly	Inspect and evaluate the effectiveness of the implementation of on-site flora and fauna measures	Environment Advisor	E&S Inspection Checklist
Pre-clearing inspection / Permit to Clear hold point	Prior to any vegetation clearing	Clearing extent verified; habitat features assessed; Permit to Clear signed before works	Environment & Sustainability Manager (or delegate) / Project Ecologist	Permit to Clear (signed); Pre-Clearing Inspection Record
Two-stage clearing process verification (where habitat trees identified)	During clearing activities where habitat trees are identified	Stage 1/Stage 2 sequencing applied; ≥48 hour separation; ecologist present during habitat tree clearing; felled habitat tree left 24 hours or inspected prior to processing	Stations Manager / Project Ecologist / Environment & Sustainability Manager (or delegate)	Site diary / attendance records; clearance records associated with Permit to Clear
Post-clearing inspection	Following completion of clearing activities	Clearing limits verified; type and area of vegetation cleared validated	Environment & Sustainability Manager (or delegate)	Post-clearing Inspection Form; Post clearance report

Activity	Frequency / Timing	Verification Focus	Responsibility	Records
Weed management / hygiene verification	Prior to clearing works (where required) and as required during works	Weed management and hygiene practices implemented to prevent weed/pathogen spread	Stations Manager	Weed / hygiene checklist (where used); inspection records
Unexpected threatened species and/or EEC response verification	Trigger-based	Stop-work implemented; area secured; ecologist verification completed; required consultation/notifications completed; hold point release issued before recommencement	All personnel (trigger) / Stations Manager / Environment & Sustainability Manager (or delegate) / Project Ecologist	Unexpected Finds Register; Hold Point Release (where issued); ECM/AMP updates (where required)
Microbat inspection verification – The Bays	Prior to demolition of structures or removal of mature trees at The Bays	Inspection for microbat roosting completed prior to works	Senior Environment Advisor	Permit to Clear (with Ecologist Clearance Certificate attached); Pre-Demolition Inspection Report

4.2 Reporting

Reporting will be undertaken to demonstrate compliance with the Planning Approval, REMMs, and CEMF. Table 4-2 summarises the broader reporting obligations required to verify the implementation of this FFMP.

Table 4-2: Flora and Fauna Reporting Obligations

Report Name	Source Reference	Report Details	Timing	Report Recipient
Pre-clearing inspection documentation (including Permit to Clear and ecologist verification where applicable)	CEMF flora and fauna requirements / FFMP Section 3.3	Documentation confirming pre-clearing inspection completed, clearing limits verified, and ecological risks assessed prior to vegetation disturbance	Prior to vegetation clearing (trigger-based)	Project records; provided to Environmental Representative (ER) or Sydney Metro upon request
Habitat tree clearing verification (ecologist attendance records where applicable)	CEMF-FF2 / FFMP Section 3.3	Records demonstrating implementation of two-stage clearing process where habitat trees are identified	During clearing activities (if applicable)	Project records; provided to ER or Sydney Metro upon request
Post-clearing Inspection Form and post clearance report	CEMF Section 9.2	Documentation verifying the clearing completed (including the number of trees removed)	Post-clearing activities	Project records; provided to ER or Sydney Metro upon request
Tree Replacement Plan	CoA E54	Documents the number of trees removed by SPW. Sydney Metro will provide input on the number of trees removed from Stage 1 and 2 projects, as well as other Stage 3 project phases.	During detailed design and after the completion of vegetation removal	Design Manager Sydney Metro
Unexpected threatened species or ecological find assessment outcomes	FFMP Section 3.4 / CEMF Section 9.2(xi)	Documentation of ecologist assessment outcomes and implemented mitigation measures where unexpected ecological values are identified	Trigger-based	Managed through established project environmental reporting pathways where required

Report Name	Source Reference	Report Details	Timing	Report Recipient
Microbat inspection record – The Bays only	EIS mitigation commitment referenced in FFMP Table 3-2	Documentation confirming pre-demolition inspection for microbat roosting completed	Prior to relevant demolition activities	Project records; provided to ER or Sydney Metro upon request

APPENDICES

Appendix A Construction Flora and Fauna Management Compliance Matrix

Table A-1 Relevant Conditions of Approval

CoA No.	Requirement	Document Reference
E54	A Tree Replacement Plan must be prepared confirming the number of trees removed during SSI 10038, SSI 19238057 and Stage 3 of the CSSI and the number to be replanted at a ratio of 2:1. Replacement trees must be planted within metro station precincts and the Clyde maintenance and stabling facility or on public land up to 500 metres from the project boundary. Trees may be planted beyond 500 metres of metro station precincts and the Clyde maintenance and stabling facility on public land in consultation with Relevant Council(s) and SOPA (in respect of Sydney Olympic Park) where no more practicable land for planting can be found within and up to 500 metres from the metro station precincts and the Clyde maintenance and stabling facility boundary. The Tree Replacement Plan must clearly demonstrate that urban tree canopy will increase over a 10 year period from the commencement of operation as part of the CSSI.	Sections 3.3.4 and 4.2
E55	As many mature trees and as much urban canopy as practicable must be retained during construction. Canopy trimming should be considered where practicable prior to any mature tree removal.	Table 3-2 (FFM1, FFM3) and 3.3.1

Table A-2 Relevant CEMF Requirements

Clause	Requirement	Document Reference
9.1 a.	The following flora and fauna management objectives will apply to construction: i. Minimise impacts on flora and fauna; ii. Design waterway modifications and crossings to incorporate best practice principles; iii. Retain and enhance existing flora and fauna habitat wherever possible; and iv. Appropriately manage the spread of weeds and plant pathogens.	Section 1.2 <i>Note: No waterway modifications or crossings are proposed as part of the SPW scope, therefore objective ii. is not relevant.</i>
9.2 a.	Principal Contractors will develop and implement a Flora and Fauna Management Plan which will include as a minimum: i. The ecological mitigation measures as detailed in the environmental approval documentation and Appendix B of this Construction Environmental Management Framework; ii. The responsibilities of key project personnel with respect to the implementation of the plan; iii. Procedures for the clearing of vegetation and the relocation of flora and fauna; iv. Details on the locations, monitoring program and use of nest boxes by fauna;	Relevant CEMF mitigation measures and where they have been addressed in this Procedure is provided below in this table. Section 1.3 Table 3-2 (FFM3, FFM4) and Section 3.3 Given the highly urbanised environment and absence of native vegetation, no nest boxes are required as part of SPW works.

Clause	Requirement	Document Reference
	v. Procedures for the demarcation and protection of retained vegetation, including all vegetation outside and adjacent to the construction footprint;	Table 3-2 (FFM1, FFM2)
	vi. Plans for impacted and adjoining areas showing vegetation communities; important flora and fauna habitat areas; locations where threatened species, populations or ecological communities have been recorded;	Locations of vegetation communities surrounding the SPW sites are provided in the ECMs in the CEMP (Appendix H)
	vii. Vegetation management plan(s) for sites where native vegetation is proposed to be retained;	No native vegetation was identified around the SPW sites. Therefore, no Vegetation Management Plans are required. Instead, retained vegetation will be regularly inspected during environmental inspections as a minimum.
	viii. Identification of measures to reduce disturbance to sensitive fauna;	Table 3-2 (FFM6, FFM7, FFM8) and Section 3.4
	ix. Rehabilitation details, including identification of flora species and sources, and measures for the management and maintenance of rehabilitated areas (including duration of the implementation of such measures);	No rehabilitation areas are required as part of the SPW works. Instead, landscaping and plantings will be provided as part of the precinct works and addressed in Table 3-2 (FFM5)
	x. Weed management measures focusing on early identification of invasive weeds and effective management controls;	Table 3-2 (FFM5)
	xi. A procedure for dealing with unexpected EEC threatened species identified during construction, including cessation of work and notification of the Department, determination of appropriate mitigation measures in consultation with the DPE (including relevant relocation measures) and updating of ecological monitoring or off-set requirements;	Section 3.4
	xii. Details on the methodology for vegetation mapping and survey;	Vegetation mapping and survey will be completed during clearing process as detailed in Section 3.3
	xiii. Ecological monitoring requirements; and	Section 4
	xiv. Compliance record generation and management.	Relevant compliance records are detailed in Section 3.2 (Table 3-2) and Section 4.

Clause	Requirement	Document Reference
9.2 b.	Principal Contractors would undertake the following ecological monitoring as a minimum: i. A pre-clearing inspection will be undertaken prior to any native vegetation clearing by a suitable qualified ecologist and the Contractor's Environmental Manager (or delegate). The pre-clearing inspection will include, as a minimum: ▪ Identification of hollow bearing trees or other habitat features; ▪ Identification of any threatened flora and fauna; ▪ A check on the physical demarcation of the limit of clearing; ▪ An approved erosion and sediment control plan for the worksite; and ▪ The completion of any other pre-clearing requirements required by any project approvals, permits or licences. ii. The completion of the pre-clearing inspection will form a Hold Point requiring sign-off from the Contractor's Environmental Manager (or delegate) and a qualified ecologist; and iii. A post clearance report, including any relevant Geographical Information System files, will be produced that validates the type and area of vegetation cleared including confirmation of the number of hollows impacted and the corresponding nest box requirements to offset these impacts.	Ecological monitoring as part of the clearing process is detailed in Table 3-2 (FFM3, FFM4) and 3.3.
9.2 c.	c. The Principal Contractor's regular inspections will include a check on the ecological mitigation measures and project boundary fencing.	Section 4.1.1
9.2 d.	The following compliance records would be kept by the Principal Contractor: i. Records of pre-clearing inspections undertaken; ii. Records of the release of the pre-clearing hold point; and iii. Records of ecological inspections undertaken.	These compliance records have been included in Section 3.2 (Table 3-2) and Section 4.
CEMF-FF1	Vegetated areas to be retained and/or identified adjacent habitat areas would be fenced off prior to works to prevent damage or accidental over clearing	Table 3-2 (FFM1); Section 3.3.1; Table 4-1 (Exclusion fencing verification)
CEMF-FF2	Clearing would follow a two-stage process as follows: • Non-habitat trees would be cleared first after sign-off of the pre-clearing inspection; and • Habitat trees would be cleared no sooner than 48 hours after non-habitat trees have been cleared. A suitably qualified ecologist will be present on site during the clearing of habitat trees. Felled habitat trees would be left on the ground for 24 hours or inspected by the ecologist prior to further processing.	Table 3-2 (FFM4); Section 3.3.3; Table 4-1 (Two-stage clearing verification)
CEMF-FF3	Weed management would be undertaken in areas affected by construction prior to any clearing works. Weed management would be undertaken in accordance with the NSW Biosecurity Act 2015	Table 3-2 (FFM5); Section 3.3.1; Table 4-1 (Weed/hygiene verification)
CEMF-LV5	Lighting of construction sites would be orientated to minimise glare and light spill impacts on adjacent receivers and would be installed and operated in accordance with AS4282:1997 Control of the Obtrusive Effect of Outdoor Lighting.	Table 3-2 (FFM7); Table 2-1 (The Bays – light spill); Section 3.5 (AMP/ECM integration); Table 4-1 (verification inspections where applicable)

Clause	Requirement	Document Reference
CEMF-LV7	Opportunities for the retention and protection of existing street trees and trees on the perimeter or within the site would be identified during detailed construction planning.	Table 3-2 (FFM2). Opportunities for retention and trimming instead of removal has been included in the pre-clearance preparation process in Section 3.3.1.
CEMF-LV8	Existing trees to be retained would be protected prior to the commencement of construction in accordance with Australian Standard AS4970 the Australian Standard for Protection of Trees on Development Sites and Adjoining Properties.	Table 3-2 (FFM2); Section 3.3.1 (Protection/demarcation set-up); Section 3.5 (ECM/AMP integration); Table 4-1 (TPZ verification inspections)
CEMF-LV9	Trees removed would be replaced to provide a net increase in the number of mature trees at a ratio of 2:1.	Table 3-2 (FFM9)
CEMF-LV10	Where work is required on council land, opportunities would be investigated with the relevant local council to provide plantings in proximity to the impacted areas during construction where feasible and reasonable.	Table 3-2 (FFM9)