EASTERN TUNNELLING PACKAGE
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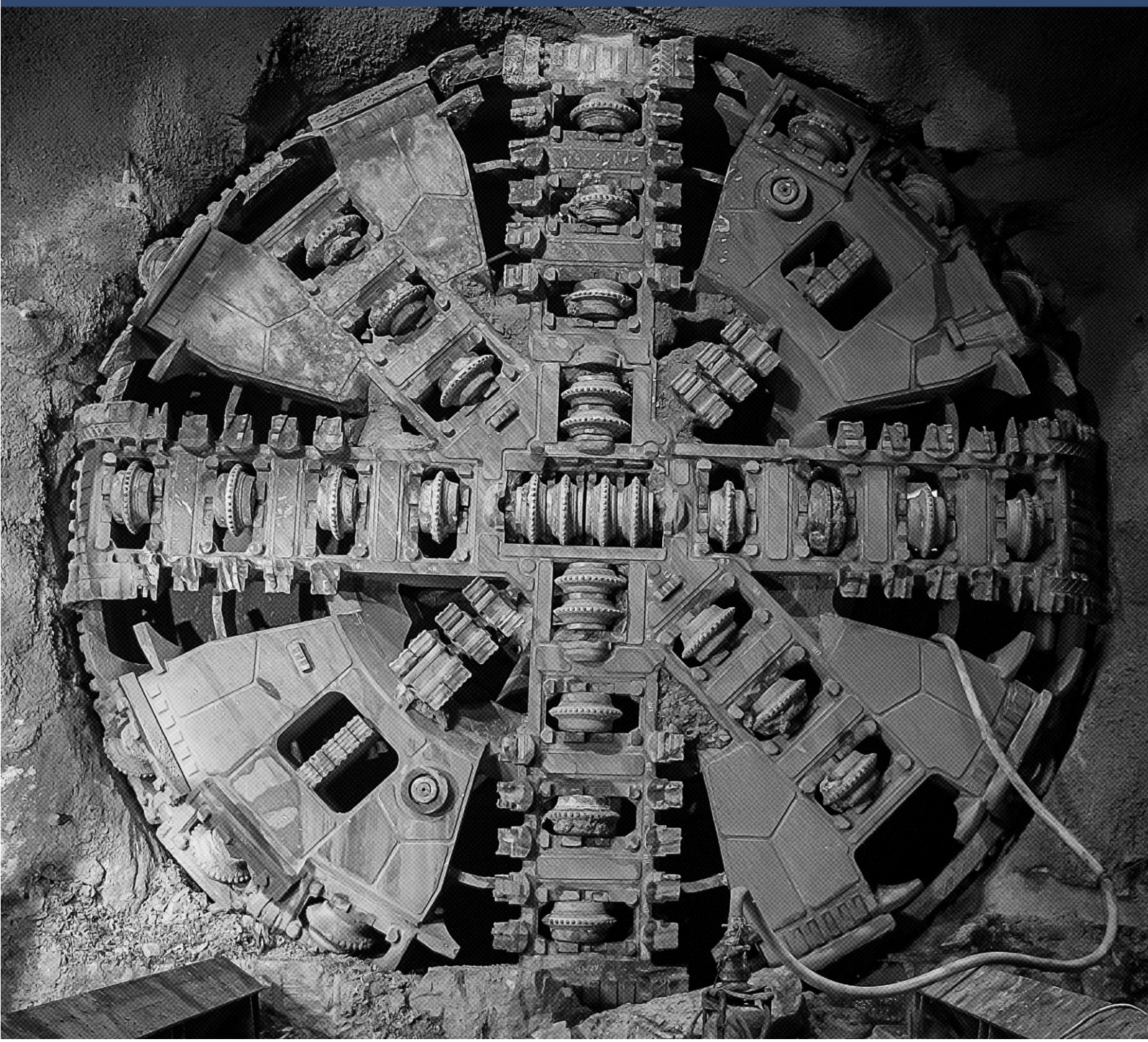
VISUAL AMENITY MANAGEMENT

SUB-PLAN



VISUAL AMENITY MANAGEMENT SUB-PLAN

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Document approval

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Signature:					

Draft issues of this document shall be identified as Revision A, B, C, etc. Upon initial issue for use this shall be changed to a number commencing at Revision 0, with subsequent revision numbers following sequentially (e.g. 1, 2, etc).

This Sub-plan was previously issued to Sydney Metro as SMWSTETP-JCG-SWD-SW000-EN-PLN-002027 (Revision A). The document number of this Sub-plan has been updated to SMWSTETP-JCG-SWD-SW000-EM-PLN-002020 to comply with both the Sydney Metro ECM schema and the JCG file numbering convention (FNC). Previous comments against SMWSTETP-JCG-SWD-SW000-EN-PLN-002027 have been addressed in Version B of the Sub-plan.

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Compliance

Table 1: Compliance matrix

ID	Requirement[1]	Reference
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 1.1
C5	Of the CEMP Sub-plans required under Condition C1, the following CEMP Sub-plans 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 (in respect of The Bays) and Relevant Council(s) (b) Flora and fauna: DPE Environment and Heritage Group, DPI Fisheries, and Relevant Council(s) (c) Heritage (Non-Aboriginal and Aboriginal): Heritage NSW, Place Management NSW (in respect of The Bays) and Relevant Council(s) (d) Spoil: Relevant council(s) (e) Soil and water: DPE Water and Relevant Council(s)	The requirements of this Condition are not triggered by this Sub-plan.
C6	The CEMP Sub-plans must state how: (a) the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved;	Table 18
	(b) the mitigation measures identified in the documents listed in Condition A1 will be implemented;	Table 11 Table 17
	(c) the relevant conditions of this approval will be complied with; and	Table 16
	(d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles	Section 1.2 Section 6 Section 7
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 1.4
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 1.4
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 1.4
C10	Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary or endorsed by the ER (whichever is	Section 1.4

ID	Requirement[1]	Reference
	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).	

1. Other relevant compliance obligations are detailed in Part B of this Sub-Plan (Element 4).

Table of contents

Compliance i
Acronyms 4
Part A: Overview 5
1. Introduction 5
1.1. Purpose 5
1.2. Objectives, targets and key performance indicators 5
1.3. Context and interface with other plans 5
1.4. Consultation and approval 6
1.5. Sub-Plan structure 7
2. Project overview 8
2.1. Background 8
2.2. Project scope 8
2.3. Project phasing 9
3. Legal and other requirements 16
3.1. Legislation 16
3.2. Guidelines 16
4. People and collaboration 17
4.1. Our team 17
4.2. Collaboration with Sydney Metro and the ER 18
5. Existing environment and indicative site layouts 19
6. Environmental aspects and impacts 22
6.1. Construction activities 22
6.2. Impacts 22
7. Environmental control measures 25
7.1. Overview 25
7.2. Crime Prevention Through Environmental Design 25
8. Compliance management 28
8.1. Hold points 28
8.2. Complaints 28
9. Review and improvement 29
9.1. Continual improvement 29
9.2. Sub-plan review 29
Part B: Implementation Systems and Tools 30
Part C Annexures 40
Appendix A Visual Amenity Management Procedure 40
Appendix B Environmental Representative Endorsement 41

Acronyms

Table 2: Acronyms

Term and abbreviation	Definition
CEMP	Construction Environmental Management Plan
CPTED	Crime Prevention Through Environmental Design
CTP	Central Tunnelling Package
DPE	Department of Planning and Environment
E&SMS	Environment and Sustainability Management System
ECM	Environmental Control Map
EIS	Environmental Impact Statement
Environmental aspect	Defined by AS/NZS ISO 14001:2015 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Environmental objective	Defined by AS/NZS ISO 14001:2015 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.
Environmental target	Defined by AS/NZS ISO 14001:2015 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
EP&A Act	Environmental Planning and Assessment Act 1979
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ETP Works	Eastern Tunnelling Package Works
ER	Environmental Representative
IC	Independent Certifier
JCG	John Holland CPB Ghella Joint Venture
OOHW	Out-of-hours work
POEO Act	Protection of the Environment Operations Act 1997
Project, the	Eastern Tunnelling Package
REMM	Revised Environmental Mitigation Measure
SM	Sydney Metro
SSI	State Significant Infrastructure
STP	Slurry Treatment Plant
TBM	Tunnel Boring Machine
VAMP	Visual Amenity Management Sub-Plan
WTP	Water Treatment Plant

Part A: Overview

1. Introduction

1.1. Purpose

This Visual Amenity Management Sub-plan (VAMP or Sub-plan) is applicable to the construction of the Sydney Metro West – Eastern Tunnelling Package (ETP Works or the Project). This Sub-plan describes how John Holland CPB Ghella Joint Venture (JCG) will minimise and manage the visual amenity impacts of the Project.

This Sub-plan has been prepared to address the requirements of the:

- State Significant Infrastructure (SSI) 19238057 Planning Approval (dated 24 August 2022) and relevant conditions of the Sydney Metro West Concept Schedule 2 of SSI 10038 Planning Approval (dated 11 March 2021) (Planning Approvals), including Modification 1 determined in April 2023, Modification 2 determined in October 2023 and Modification 3 determined in November 2024
- Sydney Metro West – Stage 2 – Phasing Report
- AS/NZS ISO 14001:2016 Environmental Management Systems – Requirements with guidance for use
- Sydney Metro Construction Environmental Management Framework (CEMF)
- Environmental Impact Statement (EIS) and the Submissions Report, including the Revised Environmental Mitigation Measures (REMMs)
- Contractual requirements including the ETP Deed and General and Particular Specifications
- Applicable legislation.

1.2. Objectives, targets and key performance indicators

The objectives, targets and key performance indicators for visual amenity management are detailed in Table 3.

Table 3: Objectives, targets and key performance indicators

Objectives	Targets	Key Performance Indicators
Minimise impacts on existing landscape features as far as feasible and reasonable	No non-compliances against visual amenity compliance obligations	Number of non-compliances (visual amenity)
Ensure the successful implementation of the Landscape Design	This objective is outside of the scope of the ETP Works	N/A
Reduce visual impact of construction to surrounding community.	No non-compliances against visual amenity compliance obligations	Number of non-compliances (visual amenity)

1.3. Context and interface with other plans

To achieve the intended environmental performance outcomes of the Project, JCG have established an Environment and Sustainability Management System (E&SMS) in accordance with the requirements of ISO 14001:2016. Guided by the Environment and Sustainability Policy, the E&SMS consists of a Construction Environmental Management Plan (CEMP), issue-specific procedures, Sub-plans and monitoring programs as illustrated in Figure 1. Implementation of the E&SMS is achieved through tools, checklists and forms as detailed in the CEMP.

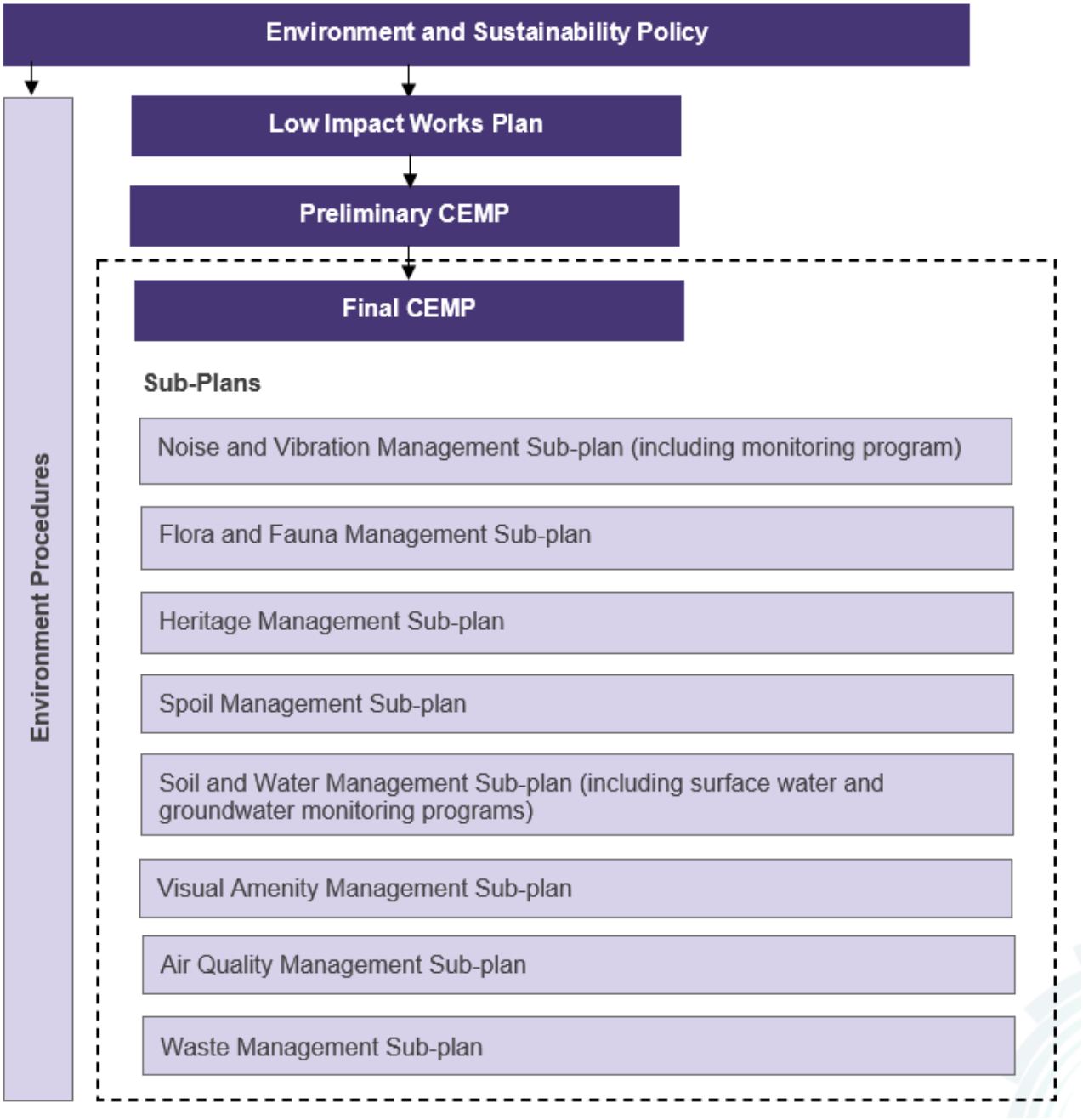

Figure 1: CEMP Framework

1.4. Consultation and approval

Reflecting the requirements of Conditions A6 and C5, there are no stakeholder consultation requirements associated with the preparation of this Sub-plan.

As nominated in the Phasing Report, this Sub-plan does not require the Planning Secretary's approval and has been endorsed by the ER as being in accordance with the conditions of approval and all relevant undertakings made in the EIS and Submissions Report. The CEMP, Sub-plans and monitoring programs were submitted to the ER no later than one month before the relevant construction phase.

Construction did not commence until the CEMPs, Sub-plans and monitoring programs have been approved by the Planning Secretary or endorsed by the ER (whichever is applicable). The CEMPs, Sub-plans and monitoring programs, as approved by the Planning Secretary or endorsed by the ER (whichever is applicable), including any minor amendments approved by the ER, will be implemented for the duration of the Project. In accordance with the Sydney Metro Phasing Report, construction of a phase will 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).

1.5. Sub-Plan structure

The VAMP structure is described in Table 4.

Table 4: Plan structure

Part	Details
Part A: Overview	▪ Project overview ▪ Legal and other requirements ▪ People and collaboration ▪ Existing environment ▪ Environmental aspects and impacts ▪ Environmental control measures ▪ Compliance management ▪ Review and improvement
Part B: Implementation Systems and Tools	This section summarises the systems and tools that will be implemented to achieve compliance with the Infrastructure Approval, REMMs and CEMF.
Part C: Annexure	Further documents and information that support this Sub-Plan include: ▪ Appendix A: Visual Amenity Management Procedure ▪ Appendix B: Environmental Representative Endorsement

2. Project overview

2.1. Background

Sydney Metro West is a new 24-kilometre metro line that will connect Greater Parramatta with the Sydney CBD via stations at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Hunter Street (Sydney CBD).

The planning process for Sydney Metro West was assessed as a staged infrastructure application under section 5.20 of the *Environment Planning and Assessment Act 1979* (EP&A Act).

Stage 1 of the development, the Sydney Metro West Concept and major civil construction work for Sydney Metro West between Westmead and The Bays (SSI-10038 Schedule 2), was approved on 11 March 2021 and includes:

- Construction of new passenger rail infrastructure between Westmead and The Bays, including:
  - Tunnels, stations (including surrounding areas) and associated rail facilities
  - Stabling and maintenance facilities (including associated underground and overground connections to tunnels)
- Modification of existing rail infrastructure, including stations and surrounding areas
- Ancillary development.

Stage 2 of the planning approval process (this Project) includes all major civil construction work including station excavation (at the Pyrmont Station and Hunter Street Station (Sydney CBD) construction sites) and tunnelling between The Bays and Sydney CBD (Figure 2).

It is noted that the existing Sydney Metro West precast facility at Eastern Creek will be utilised in the delivery of the ETP Works. The facility, which was assessed by Sydney Metro in a Review of Environmental Factors (REF) and approved on 11 March 2021, is outside of the scope of this Sub-plan.

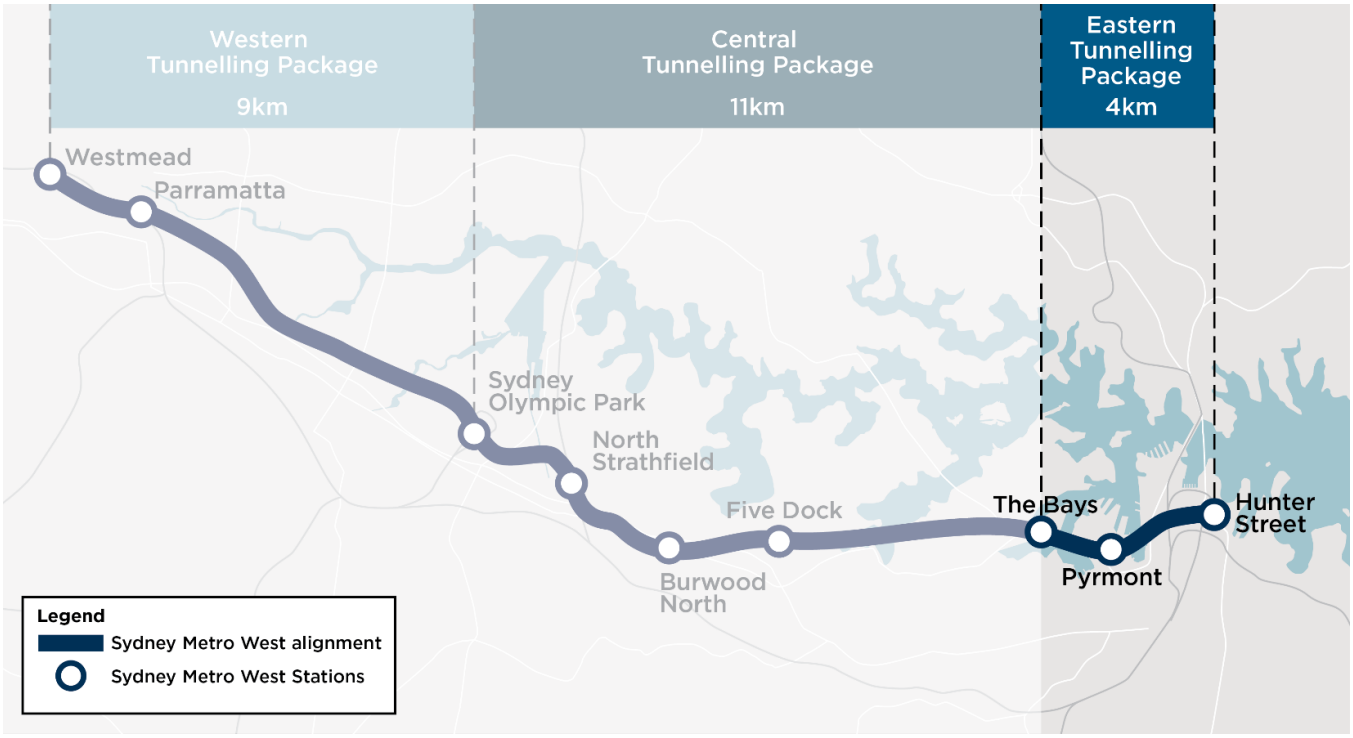

Figure 2: Overview of the Sydney Metro West alignment

2.2. Project scope

The ETP Works (construction) involves the delivery of:

- Enabling works such as demolition, utility supply to construction sites, utility adjustments and modifications to the existing transport network
- Mined crossover cavern construction

- 4.2 km of TBM tunnel excavation, 650m of mined tunnels and 12 cross passage excavation, from The Bays to Sydney CBD
- Excavation for two new underground metro stations at Pyrmont and Hunter Street
- Construction of a turnback, crossover tunnels and caverns at the eastern end of the tunnel section
- A concrete segment facility for use during construction located at Eastern Creek (outside of the scope of this Sub-plan).

2.3. Project phasing

Reflecting the outcomes of a detailed environmental risk assessment, the ETP Works will be delivered through a phased approach. This approach, detailed in the Phasing Report, includes Low Impact Works as defined under the SSI 19238057 Infrastructure Approval and the activity-based phases for construction (Table 5). Additional details on the phasing of construction activities at each worksite is provided in Table 6.

Table 5: Overview of ETP Works phasing

Phase	Description	Indicative timing	Environmental documentation	Consultation and approvals
Low Impact Works	Activities defined as Low Impact Works under SSI 19238057 Infrastructure Approval, including survey work, investigations, utility relocations, installation of environmental controls and initial demolition works	November 2022 to May 2023	▪ Low Impact Works Plan ▪ Low Impact Works DNVIS	▪ ER endorsement
Preliminary Works	Including works within the existing Hunter Street East acoustic shed, and critical enabling works which are required to be conducted outside of standard hours	March to May 2023	▪ Preliminary CEMP ▪ Environmental Procedures ▪ Hunter Street East acoustic shed works DNVIS ▪ Project-wide Out of Hours Works DNVIS	▪ Stakeholder consultation (refer to Section 1.4) ▪ ER endorsement
Tunnelling, Excavation and Associated Works (addressed in this Sub-plan)	Including the Preliminary Works (not completed prior to approval of the final CEMP), demolition of existing industrial premises, site establishment, piling and shaft excavation, tunnelling, and decommissioning	May 2023 onward	▪ CEMP ▪ Sub-plans ▪ Environmental Procedures ▪ DNVISs	▪ Stakeholder consultation ▪ ER endorsement ▪ DPE approval (as determined by the Phasing Report)

Table 6: Overview of ETP Works by worksite and work phase

Worksite	Site condition at handover to JCG	Low Impact Works	Preliminary Works	Tunnelling, Excavation and Associated Works
Project wide design survey and investigations	▪ N/A	▪ Survey control, instrumentation and monitoring including installation of benchmarks and installation of optical survey targets ▪ Geotechnical drilling (locations to be confirmed in Environmental Control Maps)	▪ Survey control, instrumentation and monitoring including installation of extensometers and piezometers (outside of standard construction hours) ▪ Geotechnical drilling (OOHW)	▪ N/A
The Bays	▪ Existing Central Tunnelling Package (CTP) Worksite ▪ Existing shaft (30 metres in depth) ▪ Existing high voltage construction power supply conduits ▪ Existing temporary buildings	▪ Installation of environmental controls1 ▪ Use of existing offices and amenities for start-up1 ▪ Secure site1 ▪ Establishment of pedestrian bridge over site access road1	▪ Installation of environmental controls1 ▪ Use of existing offices and amenities for start-up1 ▪ Secure site1 ▪ Establishment of pedestrian bridge over site access road1	▪ Installation of environmental controls1 ▪ Use of existing offices and amenities for start-up1 ▪ Secure site1 ▪ Establishment of pedestrian bridge over site access road1 ▪ Establishment of additional temporary offices amenities and car parking ▪ Establish high voltage construction power supply and water supply from existing Central Tunnelling Package substation ▪ Nozzle enlargements and TBM launch stub tunnels ▪ TBM assembly, launch and tunnelling support works from an existing shaft ▪ Cross passage construction ▪ Segment storage, temporary Water Treatment Plant (WTP) and Slurry Treatment Plant (STP) ▪ Principal spoil handling facility for ETP Works
Pyrmont West	▪ Existing buildings:	▪ Establish portable amenities ▪ Initial demolition works including:	▪ Initial demolition works including:	▪ Initial demolition works including:

Worksite	Site condition at handover to JCG	Low Impact Works	Preliminary Works	Tunnelling, Excavation and Associated Works
	– 26-32 Pyrmont Bridge Road, Pyrmont (five stories including two basement levels)	– Hazmat investigation and structural investigation – Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip only)1 ▪ Five archaeological test trenches and, if triggered, salvage excavations1 ▪ Prepare archival recordings (subject to access)	– Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip only)1 ▪ Five archaeological test trenches and, if triggered, salvage excavations1 ▪ Utility adjustment works, including: – Appropriately 20m of trenching in the northern footpath of Pyrmont Bridge Road (day shift) – Approximately 50m of trenching in Paternoster Row (day shift) – Removal of overhead cabling from the northern footpath of Pyrmont Bridge Road (one OOHW shift) ▪ Adjustment of property utility connections	– Hazmat investigation and structural investigation – Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip)1 ▪ Five archaeological test trenches and, if triggered, salvage excavations1 ▪ Establish site including new construction access driveways, site hoardings, instrumentation and monitoring ▪ Utility works, including establishment of temporary construction services, investigation and protection of existing assets, and decommissioning of redundant assets ▪ Demolition of existing buildings ▪ Archaeological monitoring during basement slab removal and investigations (if required) ▪ Establishment and use of temporary offices and amenities ▪ Excavation of temporary shaft within the station shaft footprint ▪ Installation of acoustic shed with gantry crane and steel bridging deck for excavation of station shaft, pedestrian and service adits and spoil handling for cross over cavern

Worksite	Site condition at handover to JCG	Low Impact Works	Preliminary Works	Tunnelling, Excavation and Associated Works
				▪ Permanent concrete lining of cavern and adit connections ▪ Installation of acoustic shed will support material handling outside standard hours of work
Pyrmont East	▪ Existing buildings – 37-69 Union St, Pyrmont (four stories with no basement)	▪ Establish portable amenities ▪ Initial demolition works including: – Hazmat investigation and structural investigation – Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip only)1 ▪ Detailed Site Investigation1 ▪ Street tree removal1	▪ Initial demolition works including: – Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip only)1 ▪ Detailed Site Investigation1 ▪ Street tree removal1 ▪ Adjustment of property utility connections	▪ Initial demolition works including: – Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip)1 ▪ Detailed Site Investigation1 ▪ Street tree removal1 ▪ Establish site including new construction access driveways, site hoardings, instrumentation and monitoring ▪ Decommissioning of existing electricity kiosk ▪ Utility works, including establishment of temporary construction services, investigation and protection of existing assets, and decommissioning of redundant assets ▪ Establishment of high voltage construction power supply ▪ Demolition of existing buildings ▪ Contamination management based on DSI ▪ Establishment of high voltage construction power supply ▪ Establishment and use of temporary offices and amenities

Worksite	Site condition at handover to JCG	Low Impact Works	Preliminary Works	Tunnelling, Excavation and Associated Works
				▪ Excavation of temporary shaft within the station shaft footprint ▪ Installation of acoustic shed with gantry crane and steel bridging deck for excavation of station shaft and cavern ▪ Permanent concrete lining of station cavern and nozzle enlargements ▪ Installation of acoustic shed will support material handling outside standard hours of work
Hunter Street West	▪ Existing buildings – 7-13 Hunter St, Sydney (9 Hunter St) (21 stories including one basement level) – 5 Hunter St, Sydney (304-408 George St, Sydney) (16 stories, including two basement levels) – 298-302 George St, Sydney (16 stories, including one basement level) – 312 George St, Sydney (one story with no basement) – 314-318 George St, Sydney (nine stories, including one basement level) – Heritage building at 296 George St directly (adjacent to Hunter Street West site)	▪ Establish portable amenities1 ▪ Archaeological investigations of DeMestre Place (if access dates allow)1 ▪ Initial demolition works including: – Hazmat investigation and structural investigation – Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip only)1 ▪ Prepare archival recordings (subject to access)	▪ Establish portable amenities1 ▪ Archaeological investigations of DeMestre Place (if access dates allow)1 ▪ Initial demolition works including: – Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip only)1 ▪ Establish construction access driveways at the Hunter Street East site and the Hunter Street West site ▪ Utility investigation potholes ▪ Adjustment of property utility connections	▪ Establish portable amenities1 ▪ Archaeological investigations of DeMestre Place1 ▪ Initial demolition works including: – Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip)1 ▪ Protection, adjustment and decommissioning of utility services ▪ Temporary services investigation and installation at DeMestre Place ▪ Relocate street lighting pole to allow site access ▪ Establish site including new construction access driveways, site hoardings, instrumentation and monitoring ▪ Demolition of existing buildings

Worksite	Site condition at handover to JCG	Low Impact Works	Preliminary Works	Tunnelling, Excavation and Associated Works
				▪ Archaeological monitoring during basement slab removal and investigations (if required) ▪ Establishment and use of temporary offices and amenities ▪ Excavation of station access shaft
Hunter Street East	▪ Site hoarding ▪ Existing acoustic shed, spoil handling facilities and truck access ▪ Existing excavation within acoustic shed (approximately 5 metres below road level) ▪ Existing temporary WTP and high voltage power supply ▪ Existing temporary office and amenities ▪ Existing buildings: – 28-34 O'Connell St, Sydney (19 stories, including three basement levels) – 44-48 Hunter St, Sydney (16 stories, including one basement level) – 37 Bligh St, Sydney (16 stories, including one basement level) – 33 Bligh St, Sydney (steel shed, appropriately 20m in height)	▪ Use of existing offices and amenities ▪ Maintenance of existing temporary WTP ▪ Internal temporary fit-out within the existing Hunter St East acoustic shed1: – Reticulate high voltage power supply ready for decline excavation1 – Site adjustments within the acoustic shed to facilitate the high voltage construction power reconfiguration1 – Establish (including assembly) road header, dust scrubber, shotcrete and bolting equipment1 – Site establishment within existing offices and amenities1 ▪ Initial demolition works including1: – Hazmat investigation and structural investigation1 – Establishment of site security and hoardings1 – Establishment of truck access1	▪ Internal temporary fit-out within the existing Hunter St East acoustic shed1: – Reticulate high voltage power supply ready for decline excavation1 – Site adjustments within the acoustic shed to facilitate the high voltage construction power reconfiguration1 – Establish (including assembly) road header, dust scrubber, shotcrete and bolting equipment1 – Site establishment within existing offices and amenities1 ▪ Initial demolition works including1: – Hazmat investigation and structural investigation1 – Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip only)1 ▪ Street tree trimming/removal1	▪ Internal temporary fit-out within the existing Hunter St East acoustic shed1: – Reticulate high voltage power supply ready for decline excavation1 – Site adjustments within the acoustic shed to facilitate the high voltage construction power reconfiguration1 – Establish (including assembly) road header, dust scrubber, shotcrete and bolting equipment1 – Site establishment within existing offices and amenities1 ▪ Initial demolition works including1: – Hazmat investigation and structural investigation1 – Establishment of site security and hoardings1 – Establishment of truck access1 – Demolition work (soft strip)1 ▪ Street tree trimming/removal1 ▪ Upgrade of high voltage construction power supply

Worksite	Site condition at handover to JCG	Low Impact Works	Preliminary Works	Tunnelling, Excavation and Associated Works
		– Demolition work (soft strip only)1 ▪ Street tree trimming/removal1 ▪ Prepare archival recordings (subject to access)	▪ Preliminary excavation within the existing acoustic shed (works to be conducted 24 hours each day and 7 days each week) – Temporary declines using a road header – Ventilation-duct bores – Ventilation adits using a Brock excavator – Approximately 50 truck movements per day (conducted in accordance with a Construction Traffic Management Plan) – Use of existing WTP (subject to the inclusion of alternative discharge criteria in the EPL) ▪ Load-out of excavated spoil ▪ Utility investigation potholes ▪ Adjustment of property utility connections	▪ Excavation of station cavern, nozzle enlargements and turnbacks from within an existing acoustic shed ▪ Establish site including new construction access driveways, site hoardings, instrumentation and monitoring ▪ Tree trimming and removal ▪ Demolition of existing high-rise buildings and excavation of stage 1 of station access shaft ▪ Archaeological monitoring during basement slab removal and investigations (if required) ▪ Backfill of temporary decline prior to decommissioning ▪ Demolition of existing acoustic shed and amenities and excavation of stage 2 of station access shaft ▪ Concrete lining of station cavern and turnbacks ▪ TBM disassembly and retrieval
Eastern Creek	▪ Existing temporary precast facility	▪ N/A (site is not within the scope of SSI 19238057)	▪ N/A (site is not within the scope of SSI 19238057)	▪ N/A (site is not within the scope of SSI 19238057)

NOTES:

1. Subject to the construction program and the date of approval of the CEMPs, nominated activities that have been assessed as Low Impact Works in accordance with the Infrastructure Approval, may be included in the scope of the Preliminary Works phase or the Tunnelling, Excavation and Associated Works phase. As such, these activities have been included in all relevant phases.

3. Legal and other requirements

3.1. Legislation

This Sub-plan has been prepared in accordance with the:

- EP&A Act
- *Protection of the Environment Operations Act 1997* (POEO Act)
- *Leichhardt Local Environmental Plan 2013* (Leichhardt LEP).

Additional details on legislative requirements are provided in Section 3.3 of the CEMP.

3.2. Guidelines

The main guidelines, specifications and policy documents of relevance to this Sub-plan include:

- A Metropolis of Three Cities – the Greater Sydney Region Plan (2018)
- Our Greater Sydney 2056 Eastern City District Plan – Connecting communities (2018)
- Around the Tracks: Urban Design for Heavy and Light Rail (Transport for NSW, 2016)
- Better Placed: A design led approach: developing an Architecture and Design Policy for New South Wales (Office of the State Government Architect NSW, 2016)
- Sydney Green Grid – Spatial Framework and Project Opportunities (Office of the State Government Architect NSW, 2017)
- Greener Places – An urban green infrastructure design framework for New South Wales (Office of the State Government Architect NSW, 2020a)
- Draft Greener Places Design Guide – Open Space for Recreation Urban Tree Canopy Bushland and Waterways (Office of the State Government Architect NSW, 2020b)
- Draft Bays West Place Strategy and associated documents including draft Urban Design Framework, Strategic Place Framework, and Sustainability and Connecting with Country Framework (Department of Planning, Industry and Environment, 2021)
- Blackwattle Bay State Significant Precinct Study (Department of Planning, Industry and Environment (DPIE), 2021)
- Pyrmont Peninsula Place Strategy (Department of Planning, Industry and Environment, 2020).
- Inner West Council Local Strategic Planning Statement (Inner West Council, 2020)
- City Plan 2036: Local Strategic Planning Statement (City of Sydney, 2020a)
- Central Sydney Planning Strategy (City of Sydney, 2020b)
- The National Urban Design Protocol (Australian Sustainable Built Environment Council, 2011)
- Evaluating Good Design (Office of the State Government Architect NSW, 2018)
- Environmental impact assessment practice note EIA-N04: Guideline for landscape character and visual impact assessment (Transport for NSW, 2020).
- White Bay Power Station Conservation Management Plan (Design 5 Architects. & Sydney Harbour Foreshore Authority, 2004).

4. People and collaboration

4.1. Our team

The roles and responsibilities of key JCG personnel with respect to visual amenity management are detailed in Table 7.

Table 7: Key roles, authority and responsibility

Element	Description
Project Director	
Role	▪ Manage the delivery of the Project in accordance with the ETP Deed
Authority	▪ Hold the authority to direct personnel or subcontractors to carry out actions to avoid or minimise unintended environmental impacts ▪ Act as the Contractor's Representative
Responsibility	▪ Accountable for the environmental and sustainability performance of the Project ▪ Allocate sufficient resources to achieve environmental and approvals compliance
Minimum Skill Level	▪ Tertiary qualification in Engineering or other associated disciplines ▪ Relevant experience on similar projects and significant project delivery experience
Project Interface	▪ Lead the JCG Senior Leadership Team and interface with Sydney Metro team
Environment, Approvals and Sustainability Director	
Role	▪ Manage the delivery of environment and sustainability requirements
Authority	▪ Authority to produce any correspondence and documentation necessary for approvals, and environmental and sustainability management ▪ Authority to take all reasonable steps to achieve environmental compliance
Responsibility	▪ Accountable for environmental and sustainability performance ▪ Lead the creation of a consultative and proactive culture that ensures environmental compliance and 'No Harm' as a driver of work behaviour ▪ Lead and manage the development and implementation of a risk-based EMS ▪ Ensure environmental and sustainability participation at Value Engineering Workshops ▪ Provide specialist visual amenity advice to the Project Director and other functional managers to facilitate design and construction ▪ Oversee the preparation of environmental assessments on design changes and obtain any necessary planning approvals ▪ Oversee the reporting, investigation and response to environmental incidents or complaints ▪ Liaise with Sydney Metro and external stakeholders on performance and continual improvement ▪ Engage with the Environment Protection Authority (EPA) to obtain an EPL
Minimum Skill Level	▪ Tertiary qualification in Environmental Engineering, Science, Sustainability or other associated discipline ▪ Recent relevant experience in environmental management on a similar project ▪ Minimum of 15 years' environmental management experience and 5 years' sustainability management
Project Interface	▪ Member of the JCG Senior Leadership Team and interface with Sydney Metro West Environment and Sustainability team
Environment Manager	
Role	▪ Manage day-to-day environmental compliance, including visual amenity management
Authority	▪ Authority to stop works where a Hold Point has not been adequately released
Responsibility	▪ Assist the Environment, Approvals and Sustainability Director in the creation of a consultative and proactive culture ▪ Manage the implementation of the CEMP, including visual amenity management ▪ Deliver the environmental induction and training program

Element	Description
	▪ Undertake environmental site monitoring and inspections ▪ Facilitate site inspections with Sydney Metro, the ER and the Acoustic Advisor (AA) ▪ Report and assist in incident management
Minimum Skill Level	▪ Tertiary qualification in Environmental Engineering, Science, Sustainability or other associated disciplines ▪ Minimum of 8 years' relevant experience
Project Interface	▪ Attend environment, sustainability, design and construction meetings
Environmental Advisor	
Role	▪ Support day-to-day environmental compliance, including visual amenity controls
Authority	▪ Authority to stop works where a Hold Point has not been adequately released
Responsibility	▪ Assist the Environment Manager in the creation of a consultative and proactive culture ▪ Support the implementation of the CEMP, including visual amenity management ▪ Deliver the environmental induction and training program ▪ Undertake environmental site monitoring and inspections ▪ Facilitate site inspections with Sydney Metro, the ER and the Acoustic Advisor (AA) ▪ Report and assist in incident management
Minimum Skill Level	▪ Tertiary qualification in Environmental Engineering, Science, Sustainability or other associated disciplines ▪ Minimum of 2 years' relevant experience
Project Interface	▪ Attend environment, sustainability, design and construction meetings
Site Supervisor	
Role	▪ Assist the Project Director in implementing the requirements of this Sub-plan
Authority	▪ Authority to stop works where a Hold Point has not been adequately released
Responsibility	▪ Support the implementation of the CEMP, including visual amenity controls ▪ Deliver the environmental inductions where required ▪ Undertake environmental inspections ▪ Report and assist in incident management
Minimum Skill Level	▪ Qualification in relevant trade ▪ Minimum of 5 years' relevant experience
Project Interface	▪ Attend construction meetings

4.2. Collaboration with Sydney Metro and the ER

The Environment, Approvals and Sustainability team will openly communicate and consult with Sydney Metro, and the Environmental Representative (ER). This will include:

- Working collaboratively to ensure appropriate strategies are identified and implemented
- Holding regular meetings with the Sydney Metro Environment Team to provide updates on the construction process and receive any feedback
- Facilitating weekly inspections with Sydney Metro and the ER
- Recording and responding appropriately to environmental complaints and enquiries and reporting them to Sydney Metro and other stakeholders including the ER and the EPA in a timely manner
- Providing comprehensive information to manage incidents including details on preventative actions to avoid re-occurrence.

5. Existing environment and indicative site layouts

The existing environment, as described in the EIS (Technical Page 5 Landscape and Visual Impact Assessment) is summarised in Table 8, including a description of the Tunnelling, Excavation and Associated Works that will be visible during construction. The information in Table 8 is supported by the indicative site layouts (provided in the CEMP) which are generally in accordance with the EIS.

It is noted that the site layouts are indicative only and subject to change during detailed design.

Table 8: Existing Environment and ETP Works

Worksite	Existing Environment	Visible ETP Works and Activities
The Bays	The Bays landscape is in transition with several major projects under construction in close proximity to the ETP worksite, including: ▪ Sydney Metro Central Tunnel Package (CTP) station excavation and tunnel launch site, located between White Bay and The Bays ETP site has concluded their works. The structure listed below has been removed/decommissioned allowing clear views of the Sydney Harbour Bridge: – Parking areas, site offices, amenities, workshops, material/plant storage areas, laydown areas and an elevated conveyor – WTP – Spoil shed – Acoustic shed – Noise barriers and hoardings ▪ Port Authority of NSW Glebe Island multi-user facility project. ▪ Views from locations to the west of The Bays tunnel launch and support site have opened up following the construction of the Anzac Bridge Access Road. The road increases in elevation when travelling towards the Anzac Bridge and includes a shared use pathway that overlooks The Bays worksite. Following the widening of Victoria Road, including the removal of two buildings at the end of Hornsey Street, views between Rozelle and The Bays have become less obstructed. Existing buildings located at The Bays Precinct include the former White Bay Power Station (a State listed heritage item), the Glebe Island grain silos (local listed heritage site) and the White Bay Cruise Terminal. The predominantly residential suburbs of Balmain, Balmain East and Rozelle sit at a higher elevation than White Bay and overlook The Bays worksite. Ferries that service Balmain East, Barangaroo and Pyrmont Bay in Sydney Harbour also have views into White Bay.	▪ Additional temporary offices amenities and car parking ▪ High voltage power switchyard ▪ Spoil shed ▪ Acoustic shed ▪ Segment storage ▪ Temporary WTP and STP ▪ Principal spoil handling facility for ETP Works
Pyrmont West	The suburb of Pyrmont includes a mixture of low and medium rise developments with a mixture of retail, commercial and residential uses. The buildings consist of terraces, former warehouses and local hotels at prominent corner sites. The former ‘Waite & Bull’ building, on the corner of Pyrmont Bridge Road and Pyrmont Street and located opposite Pyrmont West site, is a five-storey former wool store building with a curved façade and is one of several historic commercial warehouse buildings. The Pyrmont West site forms part of the Pyrmont Heritage Conservation Area and includes the former Gilbey’s Gin Distillery which was approved for demolition as part of the ETP Works.	▪ Site hoardings and driveway ▪ Demolition of existing buildings located at 26-32 Pyrmont Bridge Road, Pyrmont (five stories) ▪ Temporary offices and amenities ▪ Acoustic shed ▪ Gantry crane
Pyrmont East		▪ Site hoardings and driveway ▪ Street tree removal ▪ Electrical switchyard

Worksite	Existing Environment	Visible ETP Works and Activities
	In contrast to The Bays and the Hunter Street East site, there are no current Sydney Metro works occurring at the Pyrmont East and West sites.	▪ Demolition of existing buildings located at 37-69 Union St, Pyrmont (four stories) ▪ Temporary offices and amenities ▪ Acoustic shed with gantry crane ▪ WTP
Hunter Street West	The Hunter Street West site is located in the Sydney CBD on George Street which has recently been pedestrianised as part of the Sydney Light Rail project. The site is currently occupied by modern commercial medium and high-rise buildings. The eastern entry to Wynyard Station is located opposite the construction site and has been recently upgraded. The former Skinners Family Hotel (a listed heritage item to be retained) is located within the north-western corner of the Hunter Street West site and provides visual interest to the site.	▪ Site hoardings and driveway ▪ Demolition of multiple existing buildings (one story to 21 stories) ▪ Temporary offices and amenities ▪ Shaft excavation
Hunter Street East	The Hunter Street East site is similarly located in the Sydney CBD, between Bligh Street and O'Connell Street. The site is partially occupied by modern commercial medium and high-rise buildings. The site also houses the Sydney Metro City & Southwest construction site, including: ▪ Site hoarding ▪ Acoustic shed (approximately 20m in height). ▪ Spoil handling facilities and truck access ▪ WTP and high voltage power supply ▪ Temporary office and amenities. The Hunter Street East site is located adjacent to Richard Johnson Square (local heritage value, Sydney LEP 2012 item no. I1673). A number of other heritage sites are also located in the vicinity of the construction site (refer to the Heritage Management Sub-plan, SMWSTETP-JCG-SWD-SW000-EN-PLN-002022). Several street trees line Hunter, O'Connell and Bligh streets, providing canopy coverage and amenity to the streetscape and soften views within this intensely urban environment.	▪ Use of existing Sydney Metro City & Southwest facilities ▪ New construction access driveways and additional site hoardings ▪ Street tree trimming/removal ▪ Demolition of multiple existing high-rise buildings (16 to 19 stories) and existing Blight Street Acoustic Shed ▪ Shaft excavation

6. Environmental aspects and impacts

6.1. Construction activities

Key aspects of the Project that could result in adverse visual amenity impacts include:

- Demolition of existing buildings
- Removal of vegetation and street trees
- Establishment of acoustic sheds
- Installation of hoarding
- TBM, station shaft and cavern excavation activities and support, including spoil storage and removal, water supply, water treatment and disposal, temporary ventilation plant, material storage and office facilities, worker amenities and parking
- Adjustments to parking, public transport and pedestrian access
- Trenching works in streets to lay conduits for the power supply to the sites
- Use of machinery and equipment such as mobile cranes, excavators, articulated dump trucks and concrete pumps.

Refer also to the Aspects and Impacts Register included in Appendix D of the CEMP.

6.2. Impacts

The EIS considered and assessed the impacts of the ETP Works on landscape and visual amenity (views). The assessment methodology, detailed in Section 2 of Technical Paper 5 Landscape and Visual, generally involved:

- A review of the relevant legislative and policy framework
- Identification of the existing environmental conditions
- Description of the components and character of this proposal
- An assessment of landscape impacts during construction
- An assessment of the daytime visual impacts during construction
- An assessment of night-time visual impacts during construction
- Identification of mitigation measures.

The results of the assessment, detailed in Table 9, reflect the magnitude of the change and the visual or landscape sensitivity. The assessment demonstrates that the ETP Works will have negligible to moderate impact on landscape due to the removal of buildings and trees, and the establishment of site hoarding and acoustic sheds. Impacts to visual amenity vary from negligible to moderate based on the site, the view and the time of day.

Table 9: Landscape, daytime visual amenity and night time visual amenity impacts

ETP Worksite	Landscape impact	Daytime visual amenity impacts	Night-time visual amenity impacts
The Bays	Negligible	Negligible to minor	Negligible
Pyrmont Station West	Minor	Minor	Negligible
Pyrmont Station East	Minor	Minor to moderate	Negligible
Hunter Street West	Moderate	Minor to moderate	Negligible
Hunter Street East	Minor	Minor	Negligible

Acoustic sheds will be installed at The Bays, Pyrmont West (Figure 3) and Pyrmont East construction sites (Figure 4 and Figure 5)[1]. The existing Sydney Metro City & Southwest acoustic shed at Hunter

[1] Design and colour scheme for the acoustic sheds is indicative and may change during detailed design.

Street East will be utilised during part of the ETP Works prior to being demolished to allow for shaft excavation to be completed. Subject to detailed design, the indicative height of The Bays acoustic shed is approximately 18m with the remaining acoustic sheds approximately 22m in height. It is noted that tree removals are indicative subject to further assessment and consultation with City of Sydney Council.

Figure 3: Pyrmont Station West: view west across Pyrmont Bridge Road and Pyrmont Street intersection, photomontage (Source: EIS, Technical Paper 5)

Figure 4: Pyrmont Station East: view north-east along Edward Street and Pyrmont Bridge Road, photomontage (Source: EIS, Technical Paper 5)

Figure 5: Pyrmont Station East: view west from Murray Street, photomontage (Source: EIS, Technical Paper 5)

7. Environmental control measures

7.1. Overview

Construction mitigation measures to manage potential landscape and visual impacts of the ETP Works address matters such as opportunities for tree retention or protection of street trees, appearance of acoustic sheds and site hoarding during construction, minimising lighting impacts and removal of graffiti. The mitigation measures, detailed in Table 11, are consistent with the Infrastructure Approvals, EIS and Submissions Report.

7.2. Crime Prevention Through Environmental Design

Crime Prevention through Environmental Design (CPTED) is defined as a multi-disciplinary approach to deterring criminal behaviour through environmental design. CPTED strategies rely upon the ability to influence offender decisions that precede criminal acts by affecting the built, social and administrative environment.

There are four principles of CPTED; surveillance, access control, territorial reinforcement and space management. Each of the principles are described in Table 10 including the processes and procedures that will be used to incorporate the principles in the design and construction of temporary site facilities.

Table 10: CPTED Principles and ETP processes and procedures

CPTED Principle	Description	Processes and Procedures
Surveillance	The attractiveness of crime targets can be reduced by providing opportunities for effective surveillance, both natural and technical. Good surveillance means that people can see what others are doing. People feel safe in public areas when they can easily see and interact with others. Would be offenders are often deterred from committing crime in areas with high levels of surveillance.	▪ Establish surveillance at each construction site, including electronic security and security patrols (as needed). ▪ Establish CCTV surveillance cameras within construction sites, as needed ▪ Ensure ETP Worksites are well lit.
Access control	Physical and symbolic barriers can be used to attract, channel or restrict the movement of people. They minimise opportunities for crime and increase the effort required to commit crime. By making it clear where people are permitted to go or not go, it becomes difficult for potential offenders to reach and victimise people and their property.	▪ Install and maintain perimeter security in the form of fencing or hoarding ▪ Restrict access to all construction sites by ensuring that access points can be locked during shutdown periods.
Territorial reinforcement	Community ownership of public space sends positive signals. People often feel comfortable in, and are more likely to visit, places which feel owned and cared for. Well used places also reduce opportunities for crime and increase risk to criminals. Community ownership also increases the likelihood that people who witness crime will respond by quickly reporting it or by attempting to prevent it.	▪ Ensure ETP Worksites are clearly delineated with Sydney Metro approved hoarding ▪ Establish and wayfinding signage and clearly define ingress/egress points.
Space management	Popular public space is often attractive, well maintained and well used. Linked to the principle of territorial reinforcement, space management ensures that space is appropriately utilised and well cared for.	▪ Promptly remove graffiti from hoardings and any other aspects of construction sites (REMM LV7) ▪ Employ effective housekeeping within and around construction sites ▪ Repair vandalism of construction sites / hoarding in a timely manner ▪ Replace burned out lighting in a timely manner.

Table 11: Environmental control measures

ID	Control Measures	Responsibility	Deliverables	Timing	Reference
VA1	Erect boundary screening around ancillary facilities that are adjacent to sensitive land users for the duration of the ETP Works unless otherwise agreed with relevant affected residents, business operators or landowners. The boundary screening must minimise visual impacts on adjacent sensitive land users. Hoardings at the Hunter Street and Pyrmont construction sites will include a vinyl artwork graphic developed by Sydney Metro and City of Sydney. Temporary site establishment will include banner mesh designed by Sydney Metro.	Project Manager	Boundary screening	Pre-construction Construction	Condition A24 and A25
VA2	Stabilise temporary use areas and appropriately rehabilitate in consultation with the relevant landowner as soon as feasible and reasonable following completion of construction.	Site Supervisor	Environmental inspection checklist	Construction	REMM LU1
VA3	Where feasible and reasonable, locate the elements within construction sites to minimise visual impacts (e.g. store materials and machinery behind fencing).	Site Supervisor	Environmental inspection checklist	Construction	REMM LV1
VA4	Identify opportunities for the retention and protection of existing street trees during detailed construction planning.	Site Supervisor Environmental Advisor	Detailed design drawings	Pre-construction	REMM LV2
VA5	Prior to commencement of construction, protect existing street trees to be retained in accordance with Australian Standard AS4970 the Australian Standard for Protection of Trees on Development Sites and Adjoining Properties.	Site Supervisor Environmental Advisor	Environmental Control Maps Environmental inspection checklist	Pre-construction	REMM LV3
VA6	Orientate lighting of construction sites to minimise glare and light spill impacts on adjacent receivers.	Site Supervisor Environmental Advisor	Environmental inspection checklist	Pre-construction Construction	REMM LV4
VA7	Minimise visual amenity and landscape impacts in the design and maintenance of construction site hoardings.	Project Manager Site Supervisor	Environmental inspection checklist	Pre-construction Construction	REMM LV5
VA8	Promptly remove graffiti from hoardings and any other aspects of construction sites.	Site Supervisor	Environmental inspection checklist	Construction	REMM LV7

ID	Control Measures	Responsibility	Deliverables	Timing	Reference
VA9	Incorporating input from an experienced Landscape or Urban Designer, finish all structures (including acoustic sheds or other acoustic measures, site offices and workshop sheds) in a colour which aims to minimise their visual impacts, if visible from areas external to the construction site. This finish is to be applied to all visible fixtures and fittings (including exposed downpipes).	Design Director Project Manager Site Supervisor	Detailed design drawings	Pre-construction	REMM LV8
VA10	Minimise hoarding and screening which impacts the visibility of business, where feasible and reasonable, without compromising public safety or the effective management of construction airborne noise. Implement clear pathways and signage around construction sites to maximise visibility of retained businesses, including sufficient lighting along pedestrian footpaths during the night, where relevant.	Site Supervisor Environmental Advisors	Environmental inspection checklist	Construction	REMM BI3
VA11	Engage a suitably qualified project arborist to assess street trees that will be pruned or have the potential to be impacted as a result of the Tunnelling, Excavation and Associated Works. The project arborist will provide advice on measures to minimise damage to street trees. Where feasible, trees will be pruned rather than removed. Consultation will be undertaken by Sydney Metro with the relevant Council prior to removal of street trees. Refer to the Flora and Fauna Management Sub-plan for further information on tree pruning and removal requirements.	Environment, Approvals and Sustainability Director	Arborist Reports	Pre-construction Construction	REMM B2

8. Compliance management

8.1. Hold points

The activity detailed in Table 12 is a recognised hold point and will not proceed without objective review and approval by the nominated authority.

Table 12: Hold points

Hold point	Sub-plan Reference	Release of Hold Point	Responsibility
Prior to vegetation clearing / ground disturbance	Section 7.1 and Appendix A of the Flora and Fauna Management Sub-plan	Pre-clearing Inspection Erosion and Sediment Control Plan Council consultation (street trees) (undertaken by Sydney Metro)	Qualified Ecologist Qualified Arborist Environment, Approvals and Sustainability Director (or delegate) Sydney Metro (Council consultation)

8.2. Complaints

Environmental complaints will be recorded and managed in accordance with the process detailed in Section 3.7 of the CEMP.

9. Review and improvement

9.1. Continual improvement

The continual improvement process will be undertaken in accordance with Section 3.15 of the CEMP. The intent of the process is to:

- Identify opportunities for improvement of environmental management and performance
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets.

9.2. Sub-plan review

The processes described in Section 3.6 of the CEMP may result in the need to update or revise this Sub-plan. This will occur as needed, in accordance with Section 3.14.2 of the CEMP.

A copy of the updated Sub-plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure.

Part B: Implementation Systems and Tools

Part B of this Sub-plan explains how the visual amenity impacts of the Project will be minimised. All relevant mitigation measures from the Infrastructure Approval, REMMs and CEMF are addressed in this Section. Compliance with these requirements is required at all times to minimise the risk of unauthorised environmental harm.

Part B contains the following:

- **Expectations and Requirements:** These describe what is required of the Project to implement the objectives of the Environment and Sustainability Policy and achieve the intended environmental performance outcomes.
- **JCG Response:** These are the specific actions that will be performed to demonstrate compliance with the Elements and Requirements.
- **Responsibility:** These are the people responsible for achieving compliance with the Expectations and Requirements. The key contributor is identified in bold font.
- **Deliverables:** These are the tangible outcomes that will be produced to demonstrate compliance with the Expectations and Requirements.

Element 1. Training

Table 13: Element 1: Training

ID	Expectations/Requirements	JCG Response	Responsibility	Deliverables
1.1.	All personnel have completed an induction containing relevant environmental information before they are authorised to work on the Project	All personnel working on the Project will undertake a site induction, which will provide initial training on various environmental aspects, including visual amenity. It will cover: ▪ Relevant licence and approval conditions ▪ Permissible hours of work ▪ Environmental incident procedures ▪ Visual amenity mitigation measures.	**People and Culture Director** Environment, Approvals and Sustainability Director	Induction presentation Training records
1.2.	Toolbox talks are used to reinforce key management requirements and lessons learnt	Toolbox talks on visual amenity requirements will be held regularly and will reinforce and reiterate information from inductions.	**Environment Advisors** Site Supervisor	Training records

Element 2. Monitoring and reporting

Table 14: Element 2: Monitoring and reporting

ID	Expectations/Requirements	JCG Response	Responsibility	Deliverables
2.1.	Worksites are regularly inspected to ensure the adequacy of controls	Site Supervisor to undertake daily inspections of worksite to assess the adequacy and effectiveness of visual amenity controls. Weekly inspection of visual amenity management controls will be undertaken as part of joint JCG / Sydney Metro / ER / AA inspections.	**Environmental Advisors** Site Supervisor	Site Diary entries Environmental Inspection reports
2.2.	Monitoring records are maintained	The results of visual amenity monitoring will be documented in environmental inspections.	**Environmental Advisors** Environmental Advisors/Coordinator	Environmental Inspections

Element 3. Auditing, review and improvement

Table 15: Element 3: Auditing, review and improvement

ID	Expectations/Requirements	JCG Response	Responsibility	Deliverables
3.1.	Audits are undertaken to ensure compliance with the requirements of this Sub-plan	Audits will be performed in line with Section 3.12 of the CEMP, and this Sub-plan will be updated if required.	**Environment, Approvals and Sustainability Director**	Audit Reports
3.2.	All non-compliances are reported and actioned	A visual amenity non-compliance can generally be defined as a failure to comply with SSI 19238057 Infrastructure Approval. Where a non-compliance is also an environmental incident, JCG will implement the relevant notification procedures for both non-compliances and incidents (refer to Sections 3.10 and 3.12.2 of the CEMP). Where a non-compliance is raised as part of an audit or an incident or complaint investigation, the audit, incident or complaint report may be used to close out the non-compliance; it is not necessary to raise a separate non-compliance report. Procedures for corrective actions are addressed in Section 3.12.2 of the CEMP.	**Environment, Approvals and Sustainability Director** Environmental Advisors	Corrective Action Reports Complaint Reports Incident Reports Audit Reports

Element 4. Project specific requirements

Planning Approval (SSI 19238057)

Table 16: Planning Approval (SSI 19238057)

ID	Requirements (Conditions)	JCG Response	Responsibility	Deliverables	Timing
A24	Boundary screening must be erected around ancillary facilities that are adjacent to sensitive land user(s) for the duration that the ancillary facility is in use unless otherwise agreed with relevant affected residents, business operators or landowners.	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Project Manager**	Boundary screening	Pre-Construction Construction
A25	Boundary screening required under Condition A24 must minimise visual impacts on adjacent sensitive land user(s).	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Project Manager**	Boundary screening	Pre-Construction Construction
D88	The CSSI must be constructed with the objective of minimising light spill to surrounding properties including from headlights of construction vehicles. All lighting associated with the construction of the CSSI must be consistent with the requirements of *Australian Standard 4282-1997 Control of the obtrusive effects of outdoor lighting* and relevant Australian Standards in the series *AS/NZ 1158 – Lighting for Roads and Public Spaces*. Additionally, mitigation measures must be provided to manage any residual night lighting impacts to protect properties adjoining or adjacent to the CSSI, in consultation with affected landowners.	Refer to the Visual Amenity Management Procedure (Appendix A)	**Project Manager** Site Supervisor Environmental Advisors	Environmental inspection checklists	Construction
D89	The CSSI must be constructed in a manner that minimises visual impacts of construction sites including, providing temporary landscaping and vegetative screening, minimising light spill, minimising impacts to identified significant view lines and incorporating architectural treatment and finishes within key elements of temporary structures that reflect the context within which the construction sites are located, wherever practicable.	Refer to the Visual Amenity Management Procedure (Appendix A)	**Project Manager** Site Supervisor Environmental Advisors	Environmental inspection checklists	Construction

Revised Environmental Mitigation Measures

Table 17: Revised Environmental Mitigation Measures

ID	Requirements (REMM)	JCG Response	Responsibility	Deliverables	Timing
LU1	Except where required for subsequent construction activities associated with future stages of the Concept, temporary use areas for construction purposes would be stabilised and appropriately rehabilitated as soon as feasible and reasonable following completion of construction. This would be carried out in consultation with the relevant landowner.	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Site Supervisor**	Environmental inspection checklist	Construction
LV1	Where feasible and reasonable, the elements within construction sites would be located to minimise visual impacts, for example materials and machinery would be stored behind fencing.	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Site Supervisor**	Environmental inspection checklist	Construction
LV2	Opportunities for the retention and protection of existing street trees would be identified during detailed construction planning.	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Site Supervisor** Environmental Advisor	Detailed design drawings	Pre-construction
LV3	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.	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Site Supervisor** Environmental Advisor	Environmental Control Maps Environmental inspection checklist	Pre-construction
LV4	Lighting of construction sites would be oriented to minimise glare and light spill impacts on adjacent receivers.	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Site Supervisor** Environmental Advisor	Environmental inspection checklist	Pre-construction Construction
LV5	The design and maintenance of construction site hoardings would aim to minimise visual amenity and landscape impacts.	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Project Manager** Site Supervisor	Environmental inspection checklist	Pre-construction Construction
LV6	Construction site hoardings would be designed in accordance with Sydney Metro Brand Design Guidelines and opportunities for public art on hoardings would be considered in high pedestrian locations.	Sydney Metro to provide design, including public art, in accordance with Sydney Metro Brand Design Guidelines.	N/A	N/A	Pre-construction

ID	Requirements (REMM)	JCG Response	Responsibility	Deliverables	Timing
LV7	Graffiti would be removed promptly from hoardings and any other aspects of construction sites.	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Site Supervisor**	Environmental inspection checklist	Construction
LV8	All structures (including acoustic sheds or other acoustic measures, site offices and workshop sheds) would be finished in a colour which aims to minimise their visual impacts, if visible from areas external to the construction site. This finish is to be applied to all visible fixtures and fittings (including exposed downpipes).	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Design Director** Project Manager Site Supervisor	Detailed design drawings	Pre-construction
LV9	Trees removed by the major civil construction work between The Bays and Sydney CBD would be replaced to provide a net increase in the number of mature trees at a ratio of 2:1 across the entire Sydney Metro west project (as part of future approval stages of Sydney Metro West).	Replacement of trees is to be undertaken by Sydney Metro.	N/A	N/A	Post-construction
BI3	Hoarding and screening impacting the visibility of business would be minimised where feasible and reasonable, without compromising public safety or the effective management of construction airborne noise. Clear pathways and signage would be implemented around construction sites to maximise visibility of retained businesses, including sufficient lighting along pedestrian footpaths during the night, where relevant.	Refer to Table 11 and the Visual Amenity Management Procedure (Appendix A)	**Site Supervisor** Environmental Advisors	Environmental inspection checklist	Construction

Environmental Performance Outcomes

Table 18: Environmental Performance Outcomes

Key Issue	Desired Performance Outcome	Sydney Metro West Performance Outcome	Sub-plan reference
Design, Place and Movement	▪ The proposal minimises adverse impacts on accessibility and connectivity for communities and public spaces. ▪ The proposal contributes to greener places by facilitating the enhancement and provision of green infrastructure. ▪ The proposal minimises adverse impacts on the visual amenity of the built and natural environment (including public open space).	▪ The design reflects the Sydney Metro Design Objectives and the place and design principles ▪ The Sydney Metro Design Quality Framework is implemented ▪ Metro stations contribute positively to the surrounding urban environment and provide a sense of place ▪ No net loss of tree numbers and tree canopy.	The requirements of this environmental performance outcome are not triggered by the scope of the ETP Works.
Social	▪ The proposal provides socially sustainable outcomes. The proposal maximises the social and economic welfare of the community. ▪ The proposal delivers better development outcomes by minimising negative social impacts and enhancing positive social impacts on affected communities.	▪ Negative impacts on customers and the community (including transport services, amenity, noise and vibration, water management and air quality) are minimised ▪ Impacts on the availability and quality of public open space and social infrastructure are avoided ▪ Affected communities are communicated with in a clear and timely manner to enhance community benefits, reduce disruption and address community concerns. ▪ Legacy projects are delivered to benefit local communities	Refer to Table 11 and Appendix A. All communication and engagement on Project impacts and mitigations will be guided by the Sydney Metro Overarching Community Communication Strategy (OCCS). In accordance with the OCCS, Condition D52 and the CEMF, JCG have developed a Community Communication Strategy for the ETP Works.

Construction Environmental Management Framework

Table 19: Construction Environmental Management Framework

ID	Requirements (CEMF)	Sub-plan reference
3.5 (a)	Subject to Section 3.4(b) the Principal Contractors 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 as a minimum: i. Spoil management; ii. Groundwater management; iii. Noise and vibration management; iv. Heritage management; v. Flora and fauna management; vi. Visual amenity management; vii. Soil and water management; viii. Air quality management; and ix. Waste management.	This Sub-plan
3.6 (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.	Appendix A
3.6 (b)	The procedures will include: i. A breakdown of the work tasks relevant to the specific activity and indicate responsibility for each task; ii. Potential impacts associated with each task; iii. A risk rating for each of the identified potential impacts; iv. Mitigation measures relevant to each of the work tasks; and v. Responsibility to ensure the implementation of the mitigation measures.	Appendix A Activity Method Statements Task Risk Assessments
11.1 (a)	The following visual and landscape management objectives will apply to the construction of the project: i. Minimise impacts on existing landscape features as far as feasible and reasonable; ii. Ensure the successful implementation of the Landscape Design; and iii. Reduce visual impact of construction to surrounding community.	Section 1.2
11.2 (a) i	Principal Contractors will develop and implement a Visual Amenity Management Plan for temporary works which will include as a minimum: i. The visual mitigation measures as detailed in the environmental approval documentation for construction;	Table 11

ID	Requirements (CEMF)	Sub-plan reference
11.2 (a) ii	Input from an experienced Landscape or Urban Designer	This Sub-plan has been reviewed by an experienced Urban Designer. Evidence of the review was submitted to the ER. In the event of material revisions to this Sub-plan, the document will be reviewed by the Urban Designer and re-submitted to the ER in accordance with the CEMP.
11.2 (a) iii	The maintenance of outward facing elements of site hoarding or noise barriers, including the removal of graffiti and weeds.	Table 11
11.2 (a) iv	Apply the principles of Australian Standard 4282-1997 Control of the obtrusive effects of outdoor lighting and relevant safety design requirements and detail mitigation measures to minimise lighting impacts on sensitive receivers for all permanent, temporary and mobile light sources	Appendix A
11.2 (a) v	Identify the processes and procedures that will be used for the incorporation of the principles of Crime Prevention Through Environmental Design (CPTED) in the design and construction of any temporary site facilities	Section 7.2 Appendix A
11.2 (a) vi	Compliance record generation and management	Table 14
11.2 (b)	Visual and landscape measures will be incorporated into the Principal Contractor's regular inspections including checking the health of retained vegetation around site boundaries, checking the condition of any site hoarding and acoustic sheds, and checking the position and direction of any sight lighting.	Table 14
11.2 (c)	The Contractor will retain compliance records of any inspections undertaken in relation to visual and landscape measures.	Table 14

Part C Annexures

Appendix A Visual Amenity Management Procedure

VISUAL AMENITY MANAGEMENT PROCEDURE

TEMPORARY DESIGN CRITERIA AND GUIDELINES

TEMPORARY DESIGN DEVELOPMENT

- Incorporate the principles of Crime Prevention Through Environmental Design (CPTED) in the temporary works design, including clear sightlines, effective lighting and restricted access to internal areas or high-risk areas
- Where feasible and reasonable, consider urban design or landscape treatment (in consultation with City of Sydney) to minimise visual amenity and landscape impact of any new temporary structures on the construction site boundary facing Richard Johnson Square
- Finish all structures (including acoustic sheds or other acoustic measures, site offices and workshop sheds) in a colour which aims to minimise their visual impacts, if visible from areas external to the construction site. This finish is to be applied to all visible fixtures and fittings (including exposed downpipes) (refer to example below).
- Where practicable, incorporate architectural treatment and finishes within temporary structures that reflect the context within which the construction sites are located.
- Minimise impacts to identified significant view lines.

Design Director
Project Engineers

LIGHTING CONSIDERATIONS

- Install and operate temporary site lighting (for security purposes or night works) in accordance with AS4282:2019 Control of the Obtrusive Effects of Outdoor Lighting and relevant Australian Standards in the series ASINZS 1158 - Lighting for Roads and Public Spaces.
- Install security and warning lighting so that light is not directed at or reflected onto neighbouring properties.
- Consider screening or other measures in consultation with affected landowners to manage any residual night lighting impacts.

Project Managers
Project Engineers

HOARDING BANNERS AND SIGN DESIGN

- Install boundary screening around ancillary facilities that are adjacent to sensitive land use(s) unless otherwise agreed with relevant affected residents, businesses or landowners.
- Ensure boundary screening minimises visual impacts on adjacent sensitive land uses.
- Where feasible and reasonable, minimise hoarding and screening impacting the visibility of business (without compromising public safety or the effective management of construction airborne noise).
- Install clear pathways and signage around construction sites to maximise visibility of retained businesses, including sufficient lighting along pedestrian footpaths during the night (where relevant)
- Install signage at each construction site including details of the project, application number, telephone number, postal address and email address.
- Minimise visual amenity and landscape impacts in the design and maintenance of construction site hoardings (Sydney Metro to provide design, including public art, in accordance with Sydney Metro Brand Design Guidelines)

Project Managers
Stakeholder and Community Engagement Director

CONSTRUCTION WORKSITE MANAGEMENT

RETAINING VEGETATION AND SCREEN PLANTING

- During detailed construction planning, identify opportunities to retain trees and vegetation in accordance with the Tree Clearing and Grubbing Procedure
- Provide temporary landscaping and screen planting where practicable to minimise the visual impacts of construction sites.
- Protect existing trees to be retained in accordance with Australian Standard AS4970 the Australian Standard for Protection of Trees on Development Sites and Adjoining Properties

Environmental Advisors
Site Supervisors

CONSTRUCTION

- Promptly remove rubbish, graffiti, litter, weeds and commercial advertising material from construction sites and clear and clean all working areas and accesses at project completion
- Construction hoardings, scaffolding and acoustic sheds will be regularly inspected and kept clean and free of dust build up
- Where feasible and reasonable, locate the elements within construction sites to minimise visual impacts (e.g. store materials and machinery behind fencing)
- Site Supervisors will conduct daily inspections of each work area, including site hoarding
- Environmental Advisors will conduct regular inspections of worksites, including checking the health of retained vegetation around site boundaries, checking the condition of any site hoarding and acoustic sheds, and checking the position and direction of any sight lighting. Retain records of inspections and close out of corrective and preventative actions..

Environmental Advisors
Site Supervisors

REINSTATEMENT

- Except where required for subsequent construction stages of the Concept, stabilise and appropriately rehabilitate temporary use areas as soon as feasible and reasonable following completion of construction (where required by the Deed). This would be carried out in consultation with the relevant landowner.
- Clear and clean all working areas and accesses at project completion
- Remove all plant, temporary buildings or vehicles not required for the subsequent stage of construction
- Return all land, including roadways, footpaths, loading facilities or other land having been occupied temporarily to their pre-existing condition or better as soon as possible after completion of construction.

Project Engineers
Site Supervisors

Figure 1: Example of colour palate guidance for demountable buildings and hoarding

Appendix B Environmental Representative Endorsement

HBI Healthy Buildings International Pty Ltd
A.C.N. 003 270 693 A.B.N. 39 003 270 693

Suite 2.06, Level 2
29-31 Solent Circuit
Norwest, NSW 2153

Tel: 61 (02) 9659 5433
e-mail: hbi@hbi.com.au
Web:

www.hbi.com.au

[redacted]

6 June 2025

A/Director Project Environment, Sustainability and Planning
Metro West
Sydney Metro
Transport for NSW
PO Box K659
HAYMARKET NSW 1240

REF: 201208 (G) VAMP_Rev 4

Dear [redacted]

RE: Sydney Metro West Stage 2 – Eastern Tunnelling Package: Visual Amenity Management Sub-Plan (Rev 4)

I refer to Sydney Metro's (SM) submission of the following document required by Condition C1 of the Sydney Metro West – The Bays to Sydney CBD Approval (SSI 19238057) which was approved by the Department of Planning and Environment (DPE) on 24 August 2022:

- Sydney Metro West, Eastern Tunnelling Package Visual Amenity Management Sub-Plan Rev 4 dated 30 May 2025 (SMWSTETP-JCG-SWD-SW000-EN-PLN-002027).

It is noted that:

- The Visual Amenity Management Plan (VAMP Rev 0) was initially prepared by John Holland CPB Ghella JV (JCG) to address the requirements of Condition C1 of the Infrastructure Approval and was endorsed by the ER on 24 March 2023.
- This revision (Rev 4) is part of an annual review by JCG.
- Previous versions of the document have been reviewed and updated following comments from the ER.
- Sydney Metro has reviewed and commented on previous versions of the document and have no open comments.

Following the above reviews, the revised document is considered to comprise minor amendments only.

As the approved Environmental Representative for the Sydney Metro West and as required by Conditions A32(j), on the basis of the above, the Visual Amenity Management Sub-Plan (Revision 2) is approved.

Yours sincerely

[redacted]

[redacted]

Environmental Representative – Sydney Metro West – Eastern Tunnelling Package
CC: [redacted]